THE DYNAMIC FIVE-FACTOR MODEL OF LEADERSHIP: DEVELOPING AND TESTING A HOLISTIC APPROACH TO LEADERSHIP BEHAVIOR

Thesis

presented to the Faculty of Arts

of the University of Zurich

for the degree of Doctor of Philosophy

by

Andres Pfister

from Erlenbach / ZH

Accepted in the spring semester 2011 on the

recommendations of Prof. Dr. Klaus Jonas and Prof. Dr. Bruno Staffelbach

Andres Pfister

Zurich, 2011

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“The whole is more than the sum of its parts.”

– Aristotle

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Dissertation Abstract

The aim of this dissertation project was to develop and test a new model of leadership, incorporating the key factors that influence leadership behavior.

Article 1 (Chapter 2) reviewed contemporary leadership models focusing on factors which influence leadership behavior, from a traditional as well as a modern perspective on leadership. This theoretical basis led to the development of the 'Dynamic Five-Factor Model of Leadership' (Seiler & Pfister, 2009). The five factors are: (1) the leader's individual competence, (2) the group, (3) the organization, (4) the general context, and (5) the immediate situation. The article explains the model in detail and discusses different applications.

Study 1 and 2 (Chapter 3) tested the model's reliability, validity, and applicability. Both studies showed that the model was a good tool to analyze, which factors within a specific situation were perceived as most important for one's own leadership behavior. Two samples of Swiss university students (N_1=104, N_2=105) had to rate 24 different leadership situations using the 'Dynamic Five-Factor Model of Leadership'. The findings showed, that the importance of each factor was rated independently of the other factors within a situation and each situation was rated independently of the other situations. Further findings indicated that the perceived importance of a factor was systematically influenced by three variables (time pressure, danger, formalization). Finally, a comparison of both studies revealed that when no changes were made to the structure of the situation, the situation was rated the same way. Both studies therefore demonstrated the validity, reliability, and applicability of the model for analyzing the influence of different factors on leadership behavior.

Study 3 (Chapter 4) primarily examined the impact of the five factors of the model on decision behavior. A second objective was to analyze if and how the five factors mediated the effects of the three variables: time pressure, danger, and formalization on decision behavior. These variables defined the structure of a situation. All three variables are known to systematically influence decision behavior and were employed to manipulate the situation structure in this and in the two earlier studies. Swiss university students (N=109) rated nine leadership situations using the factors of the 'Dynamic Five-Factor Model of Leadership'. In addition, they had to rate four different decision behaviors in each situation. The results revealed that the five factors were systematic predictors for decision behavior and that they mediated the effects of the three variables on decision behavior. Further, the five factors were the prefered predictors for decision behavior. We additionally argued that the five factors can be used to measure the interpretation of a situation, as their perceived impact is influenced by an interpretation process. Hence, the interpretation of a situation, i.e. the holistic view of the situation, was most important for decision behavior and not the structure of a situation, i.e. specific situational variables.

Study 4 (Chapter 5) analyzed how culture, measured with the nine culture dimensions of the GLOBE study (House, Hanges, Javidan, Dorfman, & Gupta, 2004), and personality, measured with the 'Big Five' personality factors (Costa & McCrae, 1992), influenced the interpretation of a situation and decision behavior. Data from over 1400 participants of 14 different countries was collected in an online study. The results revealed that both culture and personality influenced the interpretation of a situation, i.e. the perceived impact of the five factors on

leadership behavior. Further, the culture dimensions were systematic predictors for the five personality factors, showing the link already found between culture and personality (Hofstede & McCrae, 2004) on an individual level. Accordingly, personality partially mediated the effects of culture on the interpretation of a situation. Both, culture and personality, also systematically influenced decision behavior. As in the previous study the interpretation of a situation was the best predictor for decision behavior. Again, personality partially mediated the effects of culture on decision behavior. Additionally, interpretation of the situation partially mediated the effects of culture and personality on decision behavior. But the effects of culture and personality on the interpretation of a situation and decision behavior were small. The chapter proposes reasons why these influences were so small.

The results of the studies have important implications for leadership research. First, they undscore the applicability of a new holistic leadership model. Aside from showing that a holistic measurement of a situation provides a solid basis for explaining leadership behavior, the studies also support the importance of the interpretation process for leadership behavior. The holistic interpretation of the situation is the basis for decision behavior rather than specific situational variables. Situational circumstances, culture, and personality influence this interpretation. In different ways, the studies show that leadership behavior is not the result of the sum of all influencing factors, but the result of a dynamic interactive process of all factors, which together generate leadership behavior. Leadership behavior is more than the sum of its influences.

Contents in Brief

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Introduction

The last century produced a number of theories and models to describe what constitutes a good leader and good leadership (Hughes, Ginnett, & Curphy, 2006; Northouse, 2009; Yukl, 2010). A review of the literature reveals that each model or theory focuses on one or several of five general factors which influence leadership behavior. The most often used and most widely analyzed are the leader with his traits, personality, intelligence, and competences (Lord, de Vader, & Alliger, 1986; Mann, 1959, Stogdill, 1948, 1974), the group a leader leads or works together with (Atkinson, 1957; Herzberg, 1964; Janis, 1982, Maslow, 1954; Tjafel, Billig, Bundy, & Flament, 1971; Tuckman, 1965; Yukl, 1981; Zajonc, 1965), and the situation they are confronted with (Fiedler, 1967; Hunt & Osborn, 1982; Murphy, 1941; Vroom & Yetton, 1973). Two further factors have come into focus in recent decades. These are the organization the leader and the group are a part of (Bass, 1990; Hughes et al., 2006; Mintzberg, 1973) and the context in which the leader, group, and organization are embedded (Yammarino, Dansereau, & Kennedy, 2001; House, Hanges, Javidan, Dorfman, & Gupta, 2004; Tosi, 1991).

Interestingly, no leadership theory or model exists which simultaneously takes all five factors into account. Most recent leadership models focus on a maximum of three to four of these factors. The multi-level multidimensional approach to leadership of Yammarino et al. (2001), for example, focuses on the factors leader, group, organization, and context. The factor situation, which incorporates immediate influences on leadership behavior such as the external pressure to decide or the novelty and familiarity of the situation, is not integrated however. Hence, a leadership model is needed which takes all important sources of influence into account.

This introduction (Chapter 1) provides an overview of some definitions of leadership and a short review of traditional and modern leadership approaches focusing on the factors used to explain leadership. This is followed by a description of the criteria a new model or theory has to fulfill, in order to benefit research. Next, the aim of the dissertation as well as the rationale and structure of the studies are presented. Chapter 2 reviews the contemporary leadership literature and presents the ’Dynamic Five-Factor Model of Leadership’ in-depth. Possible ways of measuring the impact of the five factors on leadership behavior are discussed as well as the scenario approach. Chapter 3 reports the first test of the model in two independent studies which focus on testing the model’s reliability, validity, and applicability. Chapter 4 reports the test of the model for predicting decision behavior, offering new insights into how decision behavior is mainly influenced and by what. Chapter 5 reports the test of the model as a means to measure the interpretation of a situation and the effect of culture and personality on this interpretation and on decision behavior. Chapter 6 presents a summary of the main results of this dissertation project and an overall discussion of the four studies’ findings. Chapter 6 finishes with an overall conclusion and outlook for further research.

Leadership Definitions

Today, numerous definitions of leadership exist. Bennis (1959) already stated that “always, it seems, the concept of leadership eludes us or turns up in another form to taunt us again with its slipperiness and complexity. So we have invented an endless proliferation of terms to deal with … and still the concept is

not sufficiently defined" (p. 259). Thirty years later leadership research still faces the same problem. Bass (1990) stated that "there are almost as many definitions of leadership as there are persons who have attempted to define the concept" (p.11). Each definition can be seen as an expression of the current state of research and the factors considered important for leadership.

Table 1

Five Definitions of Leadership

1. Leadership is "the behavior of an individual … directing the activities of a group toward a shared goal" (Hemphill & Coons, 1957, p. 7)
2. Leadership is "the influential increment over and above mechanical compliance with the routine directives of the organization (Katz & Kahn, 1978, p. 528)
3. "Leadership is exercised when persons … mobilize … institutional, political, psychological, and other resources so as to arouse, engage, and satisfy the motives of followers" (Burns, 1978, p. 18)
4. "Leadership is about articulating visions, embodying values, and creating the environment with which things can be accomplished" (Richards & Engle, 1986, p. 206)
5. Leadership is "the ability of an individual to influence, motivate, and enable others to contribute toward the effectiveness and success of the organization" (House et al., 1999, p. 184)

Note. From "*Leadership in organizations"* by G. Yukl, (2010), p. 3, Englewood Cliffs, NJ: Prentice Hall. Adapted by the author.

As research on leadership evolved, concepts and definitions changed accordingly. More and more factors have been found which exerted an important influence on leadership. These factors were incorporated into theories, models, and the definition of leadership. Yukl (2010) provided a series of leadership definitions (Table 1) making it possible to follow these developments to a certain degree. The definitions become more complex as more aspects are incorporated. Andersen (2006) generally sees the elements of group or organization, structure, interpersonal relationships and goal attainment as the elements most often included in the definition of leadership. Other elements such as the leader's competence and the context also can be found in the above definitions. These definitions have evolved within constantly developing research approaches to leadership.

Approaches to Leadership

As the professional life and society have changed considerably over the last century, so have approaches to leadership. As stated in the previous paragraph, different factors were identified as being important for leadership. The focus of the approaches to leadership has changed with every new important factor found. Yukl (2010) describes five main approaches to leadership: 1) the trait approach, 2) the behavior approach, 3) the power-influence approach, 4) the situational approach, and 5) the integrative approach.

The Trait Approach

The trait approach focuses on the characteristics of the leader to define good leadership. The central question is: which traits define a good leader? Hence,

the research focus was solely on the individual who led and therefore only on the factor *leader*. The research focused on the leader's traits, personality, intelligence, and competences (Lord et al., 1984; Mann, 1959, Stogdill, 1948, 1974). But it soon became obvious that the traits alone do not define whether someone is a good leader or can lead under all circumstances. Gibb (1968) concluded that research had not established a clear relationship between a leader's personality traits and a position of leadership. Similarly, Stogdill (1974) noted that personality research had limited value when predicting an individual's leadership potential. Earlier, Stogdill (1948) also stated that persons who are leaders in some situations may not necessarily be leaders in other situations.

The Behavior Approach

Leadership always relates to individuals or groups which need to be led. The behavior approach focused on the leader's behavior towards individuals and a group as the main source of leadership success. The group as such has had considerable attention in leadership research. It influences the leadership process through the follower's expectations, personality traits, maturity level, levels of competence, and motivation (Moore, 1976; Sales, Levanoni, & Saleh, 1984; Scandura, Graen, & Novak, 1986; Sutton & Woodman, 1989). A leader has to adapt his behavior to the group members to be successful. For example, a leader has to show consideration behavior focusing on building good relationships with followers. And additionally, he has to initiate structure by organizing the work or defining roles and responsibilities (Fleishman, 1953; Hemphill & Coons, 1957). Katz, Maccoby, and Morse (1950) defined similar behaviors as being either

relations-orientated or task-orientated. Accordingly, Blake and Mouton (1964), in their managerial grid theory, described managers in terms of their orientation towards relations and task. One of the more recent theories following this approach is the Leader-Member Exchange (LMX) theory by Dansereau, Grean, and Haga (1979) describing the role-making processes between a leader and an individual subordinate. Hence, the behavior approach added the adaption of the behavior towards the characteristics of other people to the leadership equation and therefore the factor *group* which incorporates all other people directly involved in the leadership process.

The Situational Approach

The situational approach integrated the factor *situation* into the leadership equation and gave the impetus for a wide range of new insights. At the same time the theories and models started to grow in complexity as mediating and moderating effects were found in these three factors. The contingency model of Fiedler (1967) is one of the most prominent, as it considers all three factors the leader, the followers, and the situation as being important for leadership. Other models focused more on situational aspects to explain leadership behavior such as the decision-making model of Vroom and Yetton (1973) or the path goal theory of leadership by House (1971, 1996). The situational leadership model (Hersey & Blanchard, 1969) offered further insights into which leadership behavior a leader should apply depending on the situation and the follower's readiness to perform a given task in a specific situation. But just as the explanations of leadership

increased in complexity, leaders were confronted with increasingly complex organizations.

The Power-Influence Approach

The power-influence approach focused on “an analysis of the complex web of power relationships and influence processes found in all organizations” (Yukl, 2002, p. 141) to understand what makes managers effective. Hughes et al. (2006) stated that the effectiveness of leadership in large organizations depends on the influence over superiors, peers, and subordinates. French and Raven (1959) developed a taxonomy to classify different types of power. They differentiated between five kinds powers which are 1) reward power, 2) coercive power, 3) legitimate power, 4) expert power, and 5) referent power. Apart from referent and expert power all others are tied to the position in the organization. It is the organization which defines this position and gives the leader the necessary means to exert power. Hence, the power-influence approach explicitly added the own *organization* as a factor to the leadership equation. The strategic contingencies theory (Hickson, Hinings, Lee, Schneck, & Pennings, 1971) for example explains how power is gained or lost through the selection of group members, the decision for an organizations strategy, and allocation of resources. Such developments have a direct impact on the individual’s leadership behavior as a shift in strategy or resources increases or limits the range of possible leadership behaviors.

The Integrative Approach

The integrative approach corresponds to the new leadership approaches, such as transformational leadership (Bass, 1985), or the systemtheoretical approaches to leadership, such as the multi-level multidimensional approach by Yammarino et al. (2001) or the multi-level approach by Tosi (1991). The approach of Yammarino et al. incorporates as factors the leader, group, organization, and even context and explains the different processes, results, and consequences of leadership on the different levels of the individual, the dyad, the group, and the collective. At the collective level, they see organizational and cultural factors as having an important influence as well as the influence of for example other organizations such as market competitors or the government. Other approaches focus on the effects of contextual factors on leadership. For example, House et al. (2004) analyzed the influence of national culture on leadership in the GLOBE Study. They found that culture has major effects on which leadership behavior is seen as effective and which leadership characteristics are seen as favorable. Hence, the integrative approaches added the factor *context* in which the individual, the group, and the organization are embedded in to the leadership equation.

A First Conclusion

Leadership behavior is therefore a function of five different influencing factors. As leadership behavior has to be executed or shown by an individual the individual characteristics and competences of this leading person have great effects on the shown leadership behavior. As a leader has to lead an individual or a group the leadership behavior has to be adapted to the followers depending on their

characteristics, competences as well as in case of the group according to the group composition and group processes. Leadership behavior additionally is binded to certain rules, regulations and additionally to the power that is given by the organization of which leader and followers are a part of. But there are further influences which do not stem from the leader, the group or the organization. These are long lasting influences from the context, e.g. governmental decisions, law, culture, historical developments, geography. Besides all longer lasting static and dynamic influences the leadership behavior also has to be adapted to the dynamic and fast changing circumstances encountered in the proximal leadership situation. Leadership behavior can therefore be seen as constantly adapting to proximal and lateral influences and is based on the individual competences and character of the person leading.

Limitations of Traditional and Modern Theories

While new approaches to leadership were established and additional factors influencing leadership were examined and added to the leadership equation, the complexity of the theories and models increased. Current leadership models such as the multi-level multidimensional approach of Yammarino et al. (2001) or the competence approach by Wilkens, Keller, and Schmette (2006) are based on a system-theoretical approach to leadership. Although the complexity of these approaches, theories, and models offers new insights into leadership, they simultaneously become increasingly inapplicable for understanding everyday leadership behavior. Lord, Brown, Harvey, and Hall (2001) state that many of the modern leadership models do not account for the factor situation and therefore

have trouble explaining leadership behavior in a particular situation. To date no theory or model simultaneously integrates all five key influencing factors (leader, group, organization, context and situation) to explain leadership. Models of leadership are needed, integrating all influencing factors and applicable to everyday leadership situations.

Criteria for Theories and Models

Kurt Lewin wrote that “there is nothing more practical than a good theory” (1952, p. 169). But a good theory or model must fulfill several criteria. First of all, measurements founded on such a theory or model should provide objective, reliable, and valid results in line with predictions made by the theory or model. Apart from these test-theoretical criteria, further considerations apply to the theory or model as a whole. Kitcher (1982) defined three features which a good scientific theory must have. These features are unity, fecundity, and independently-testable hypotheses. The unity feature refers to the fact that a good theory or model should consist of just a few problem solving strategies that are applicable to a wide range of problems. At the same time the theory or model should be designed economically, meaning the complexity should be reduced without simplification. The fecundity feature refers to the fact that a good theory should open up new areas of research, provide answers to unresolved questions, or provide new answers to old questions. While providing new ways of looking at the world and giving new insights, the theory or model should at the same time pose new questions. Finally, the independently-testable hypotheses feature refers to the fact that "an hypothesis ought to be testable independently of the particular problem it

is introduced to solve, independently of the theory it is designed to save" (Kitcher, 1982, p. 46).

Aim of the Dissertation and Outline of the Studies

As shown in the previous paragraphs, the development of the leadership approaches each added additional factors for explaining leadership behavior. In general, five factors can be seen as important: (1) the individual leader, (2) the group, (3) the organization, (4) the context, and (5) the situation. The aim of this dissertation is to develop and test a model that uses these five factors to explain leadership behavior in a particular situation as called for by Lord et al. (2001). Within this model leadership behavior is seen as function of the leader, the environment, and the situation. Hence, leadership behavior is a result of the dynamic influences of the five factors on each other and on leadership behavior. Leadership behavior is therefore more than the sum of all influences. Such a model would follow a holistic approach to leadership. Chapter 2 presents the theoretical foundation and the description of such a model. In addition, the chapter describes a method of measuring the influence of the five factors on leadership and possible applications for leadership research.

The method to measure the influence of these five factors has to fulfill several test-theoretical criteria. The purpose of Study 1 and Study 2 (Chapter 3) was to empirically test the measurement method described in Chapter 2. Both studies examined if the rating of each factor was independent of the rating of all other factors within a situation (intra-situational differences) and if the rating of a factor in one situation was independent of the rating of the same factor in another

situation (inter-situational differences). Showing bot inter- and intra-situational differences in the rating of a factor proves that a factor is perceived as an independent part of a situation, and that it's influence dynamically changes depending on the situation confronted. Study 2 was to a large degree a replication of Study 1 and allowed us to analyze the reliability and reproducibility of the measurement method. The main research question for both studies is:

Does a measurement based on a holistic model, i.e. the rating of the perceived importance of the five factors on leadership behavior, provide valid, reliable, and reproducible results which can be used to explain leadership behavior in different situations?

Study 1 and Study 2 had a second purpose. Research identified many situational circumstances that influence leadership behavior (Field et al., 1990; Vroom & Jago, 1988; Vroom & Yetton, 1973, Yukl & Fu, 1999). Systematic differences in such situational circumstances have to lead to systematic changes in the rating of the five factors. To test this assumption, three variables were used to manipulate the structure of the leadership situations used in Study 1 and Study 2. These variables were time pressure, danger, and formalization. The literature review indicated that each of these three variables can have a distinct effect on the perceived importance of the five factors. The additional research question for both studies therefore is:

Are the three variables time pressure, danger, and formalization systematic predictors for perceived importance of the five factors?

Showing that the five factors can be used to measure different influences on leadership behavior and that the rating of each factor is influenced by specific situational circumstances are not sufficient to prove the importance of the five factors for leadership behavior. Differences in the ratings of the five factors have to affect leadership behavior. The purpose of Study 3 (Chapter 4) was to analyze the effect of different ratings of the five factors on one specific leadership behavior, namely on decision behavior. Using decision behavior as a means of measuring leadership behavior offers several advantages. The decision behaviors differ in the amount of participation by other group members in the decision making process (Yukl, 2010). This degree of participation can easily be measured, for example on a scale from 1 (*no participation*) to 5 (*full participation*). In addition, the choice for and the perceived adequacy of a decision behavior in a situation can be measured on similar scales. This poses a chief advantage for measuring other leadership behaviors since decision behavior can be compared more easily between situations than, for example, situation specific motivational or communication behavior. Hence, the main research question for Study 3 is:

Is the perceived importance of the five factors a systematic predictor for decision behavior?

Decision behavior has been subject to research for several decades. The effects of various specific situational circumstances on decision behavior are well examined like, for example, the effects of time pressure (Field et al., 1990; Vroom & Jago, 1988; Vroom & Yetton, 1973). Study 1 and Study 2 analyzed the effects of the three variables time pressure, danger, and formalization on the perceived importance of the five factors of the model. These were used in the two previous studies reported in chapter 3 and the study presented in chapter 4 to manipulate the structure of a situation. We argued that the perceived importance of a factor is a result of an interpretation process. Hence, the ratings of the five factors can be used as a tool to measure the interpretation of a situation. As the structure of a situation influences the rating of the five factors, two further research questions have to be posed:

Does the interpretation of a situation, i.e. the five factors, mediate the effect of the structure of a situation, i.e. the three variables, on decision behavior?

Is the structure of a situation or the interpretation most important for predicting decision behavior?

Culture and personality research are confronted with the lack of an accepted taxonomy for analyzing the interpretation of a situation (Hogan, Harkness, & Lubinski, 2000). Ten Berge and De Raad (2002) explicitly state that “we should develop strategies for systematically investigating situations” (p. 81). Several researchers argued that both culture (Church, Katigbak, & Del Prado, 2010;

Geletkanycz, 1997; Walumbwa, Lawler, & Avolio, 2007) and personality (Reynolds & Karraker, 2008) influence the interpretation of a situation, and thus they influence behavior through this change in interpretation. The purpose of Study 4 was to use the ratings of five factors as a measurement for the interpretation of a situation similar to Study 3. By using the ratings in such a way it is possible to analyze the influence of culture and personality on the interpretation of a situation. The main research question for Study 4 is:

Do culture and personality influence the interpretation of a situation?

Although conflicting findings exist regarding the influence of personality on decision behavior (Dhanes, 2000; Tett & Jackson, 1990), the influence of culture on decision behavior has been shown in several studies (Dickson, Den Hartog, & Mitchelson, 2003; Reber, Jago, & Böhnisch, 1993, Sagie & Aycan, 2003). As Study 4 builds on the findings of Study 3, which analyzed the influence of the interpretation of a situation on decision behavior, two further research questions have to be posed:

Do culture and personality influence decision behavior?

Does the interpretation of a situation mediate the effects of culture and personality on decision behavior?

The rationale for Study 1 and Study 2 was to test the validity, reliability, and reproducibility of the measurement described in Chapter 2. Study 3 and Study 4 were additionally designed to approach the three criteria of Kitcher (1982). All four studies deal with the criterion of unity. Additonally, they integrate earlier findings into the new model. Study 3 and Study 4 focus primarily on the criterion fecundity by offering a novel look at what influences decision behavior and by offering new insight into how culture and personality influence the interpretation of a situation and decision behavior. At the same time the model is used to generate auxiliary independently-testable hypotheses.

References

Andersen, J. A. (2006). Leadership, personality and effectiveness. *Journal of Socio-Economics*, *35*, 1078-1091.

Atkinson, J. W. (1957). Motivational determinants of risk taking behavior. *Psychological Review*, *64*, 359-372.

Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.

Bass, B. M. (1990). *Handbook of leadership: A survey of theory and research*. New York: Free Press.

Bennis, W. G. (1959). Leadership theory and administrative behavior: The problem of authority. *Administrative Science Quarterly*, *4*, 259-260.

Blake, R. R., & Mouton, J. S. (1964). *The managerial grid*. Houston, TX: Gulf Publishing.

Burns, J. M. (1978). *Leadership*. New York: Harper & Row.

Church, T. A., Katigbak, M. S., & del Prado, A. M. (2010). Cultural similarities and differences in perceived affordances of situations for Big Five behaviors. *Journal of Research in Personality*, *44*(1), 78-90.

Costa, P. T., Jr., & McCrae, R. R. (1992). *Revised NEO personality inventory (NEO-PI-R) and NEO Five-Factor inventory (NEO-FFI) professional manual*. Odessa, FL: Psychological Assessment Resources.

Dansereau, J. Jr., Grean, G., & Haga, W. J. (1975). A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process. *Organizational Behavior and Human Performance*, *13*, 46-78.

Dhanes, V. C. (2000). The impact of personality and culture on participatory leader behaviour. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, *10*(12-B), 6403.

Dickson, M. W., Den Hartog, D. N. & Mitchelson, J. K. (2003). Research on leadership in a cross-cultural context: Making progress, and raising new questions. *The Leadership Quarterly*, *15*, 729-768.

Fiedler, F. E. (1967). *A theory of leadership effectiveness*. New York: McGraw-Hill.

Field, R. H. G., Read, P. C., & Louviere, J. J. (1990). The effect of situation attributes on decision method of choice in the Vroom-Jago model of participation in decision making. *The Leadership Quarterly*, *1*(3), 165-176.

Fleishman, E. A. (1953). The description of supervisory behavior. *Journal of Applied Psychology*, *37*, 1-6.

French, J. & Raven, B. H. (1959). The bases of social power. In D. Cartwright (Ed.), *Studies of social power* (pp. 150-167). Ann Arbor, NI: Institute for Social Research.

Geletkanycz, M. A. (1997). The salience of 'Cultures Consequences': The effects of cultural values on top executives commitment to the status quo. *Strategic Management Journal*, *18*(8), 615-634.

Gibb, C. A. (1968). Leadership. In G. Lindzey & E. Aronson (Eds.), *The handbook of social psychology* (Vol. 3, 2nd ed., pp. 141-148), Reading, MA: Addison-Wesley.

Hemphill, J. K., & Coons, A. E. (1957). Development of the leader behavior description questionnaire. In R. M. Stogdill & A. E. Coons (Eds.*), Leader behavior: Its description and measurement* (pp. 6-38). Columbus, OH: Bureau of Business Research, Ohio State University.

Herzberg, F. (1964). The motivational-hygiene concept and problems of manpower. *Personnel Administrator*, *27*, 3-7.

Hofstede, G., & McCrae, R. R. (2004). Personality and Culture Revisited: Linking Traits and Dimensions of Culture. *Cross-Cultural Research, 38*(1), 52-88.

Hersey, P., & Blanchard, K. H. (1969). The life cycle theory of leadership. *Training and Development Journal*, *23*, 26-34.

Hickson, D. J., Hinings, C. R., Lee, C. A., Schneck, R. S., & Pennings, J. M. (1971). A strategic contingencies theory of intra-organizational power. *Administrative Science Quarterly*, *16*, 216-229.

Hogan, R., Harkness, A. R., & Lubinski, D. (2000). Personality and individual differences. In K. Pawlik & M. R. Rosenzweig (Eds.), *International Handbook of Psychology* (pp. 283-304). London: Sage.

House, R. J. (1971). A path-goal theory of leader effectiveness. *Administrative Science Quarterly*, *16*, 321-339.

House, R. J. (1996). Path-goal theory of Leadership: Lessons, legacy, and reformulated theory. *Leadership Quarterly*, *7*, 323-352.

House, R. J., Hanges, P. J., Javidian, M., Dorfman, P. W., & Gupta, V. (2004). *Culture, leadership, and organizations: The GLOBE study of 62 societies.* Thousand Oaks, CA: Sage Publications.

House, R. J., Hanges, P. J., Ruiz-Quintanilla, S. A., Dorfman, P. W., Javidan, M., Dickson, M., & Associates (1999). Cultural influences on leadership and organizations: Project GLOBE. In W. H. Mobley, M. J. Gessner, & V. Arnold (Eds.), *Advances in global leadership* (pp. 171-233). Stamford, CT: JAI Press.

Hughes, R. L., Ginnett, R. C., & Curphy, G. J. (2006). *Leadership: Enhancing the lessons of experience*. New York: McGraw Hill.

Hunt, J. G., & Osborn, R. N. (1982). Toward a macro-oriented model of leadership: An odyssey. In J. G. Hunt, U. Sekaran, & C. A. Schriesheim (Eds.), *Leadership: Beyond establishment views* (pp. 196-221). Carbondale, IL: Southern Illinois University Press.

Janis, I. L. (1982). *Group think*. Boston: Houghton Mifflin.

Katz, D., & Kahn, R. L. (1978). *The social psychology of organizations*. New York: John Wiley & Sons.

Katz, D., Maccoby, N., & Morse, N. (1950). *Productivity, supervision, and moral in an office situation*. Ann Arbor, MI: Institute of Social Research.

Kitcher, P. (1982). *Abusing Science: The Case Against Creationism*. Cambridge: The MIT Press.

Lewin, K. (1952). *Field theory in social science: Selected theoretical papers by Kurt Lewin*. London: Tavistock.

Lord, R. G., Brown, D. J., Harvey, J. L., & Hall, R. J. (2001). Contextual constraints on prototype generation and their multilevel consequences for leadership perceptions. *The Leadership Quarterly, 12*, 311-338.

Lord, R. G., de Vader, C. L., & Alliger, G. M. (1986). A meta-analysis of the relationship between personality traits and leadership perceptions: An application of validity generalization procedures. *Journal of Applied Psychology, 71*, 402-410.

Mann, R. D. (1959). A review of the relationships between personality and performance in small groups. *Psychological Bulletin, 56*, 241-270.

Maslow, A. H. (1954). *Motivation and personality*. New York: Harper & Row.

Mintzberg, H. (1973). *The nature of managerial work*. New York: Harper & Row.

Moore, L. L. (1976). The FMI: Dimensions of follower maturity. *Group and Organizational Studies*, *1*, 203-222.

Murphy, A. J. (1941). A study of leadership processes. *American Sociological Review*, *6*, 674-687.

Northouse, P. (2009). *Introduction to leadership: Concepts and practice*. Thousand Oaks, CA: Sage.

Reber, G., Jago, A. G., & Böhnisch, W. (1993). Interkulturelle Unterschiede im Führungsverhalten [Intercultural differences in leadership behavior]. In M. Haller, K. Bleicher, E. Brauchlin, H. J. Pleitner, R. Wunderer, & A. Zünd (Eds.), *Globalisierung der Wirtschaft: Einwirkungen auf die Betriebswirtschaftslehre* (pp. 217-241). Bern, Switzerland: Verlag Paul Haupt.

Reynolds, B., & Karraker, K. (2008). A big five model of disposition and situation interaction: Why a "helpful" person may not always behave helpfully. *New Ideas in Psychology, 21*, 1-13.

Richards, D., & Engle, S. (1986). After the vision: Suggestions to corporate visionaries and vision champions. In J. D. Adams (Ed.), *Transforming leadership* (pp. 199-214). Alexandria, VA: Miles River Press.

Sagie, A., & Aycan, Z. (2003). A cross-cultural analysis of participative decision-making in organizations. *Human Relations, 56*(4), 453-473.

Scandura, T. A., Graen, G. B., & Novak, M. A. (1986). When managers decide not to decide autocratically: An investigation of leader-member exchange and decision influence. *Journal of Applied Psychology, 52,* 135-147.

Sales, C. A., Levanoni, E., & Saleh, D. H. (1984). Satisfaction and stress as a function of job orientation, style of supervision, and the nature of task. *Engineering Management International, 2,* 145-153.

Seiler, S., & Pfister, A. C. (2009). Why did I do this? Understanding leadership behavior based on the dynamic five-factor model of leadership. *Journal of Leadership Studies, 3,* 41-52.

Stogdill, R. M. (1948). Personal factors associated with leadership: A survey of the literature. *Journal of Psychology, 25,* 259-269.

Stogdill, R. M. (1974). *Handbook of leadership: A survey of literature*. New York: Free Press.

Sutton, C., & Woodman, R. (1989). Pygmalion goes to work: The effects of supervisor expectations in a retail setting. *Journal of Applied Psychology, 74,* 943-950.

Ten Berge, M. A., & De Raad, B. (2002). The structure of situations from a personality perspective. *European Journal of Personality, 16,* 81-102.

Tajfel, H., Billig, M. G., Bundy, R. P. & Flament, C. (1971). Social categorization and intergroup behavior. *European Journal of Social Psychology, 1,* 149-178.

Tosi, H. L. (1991). The organization as a context for leadership theory: A multilevel approach. *The Leadership Quarterly, 2*(3), 205-228.

Tuckman, B. W. (1965). Developmental sequence in small groups. *Psychological Bulletin, 63*, 384-399.

Vroom, V. H., & Jago, A. G. (1988). *The new leadership: Managing participation in organizations*. Englewood Cliffs, NJ: Prentice-Hall.

Vroom, V. H., & Yetton, P. W. (1973). *Leadership and decision making*. Pittsburgh: University Pittsburgh Press.

Walumbwa, F. O., Lawler, J. J., & Avolio, B. J. (2007). Leadership, individual differences, and work-related attitudes: a cross-culture investigation, *Applied Psychology: An International Review, 56*(2), 212-230.

Wilkens, U., Keller, H., & Schmette, M. (2006). Wirkungsbeziehungen zwischen Ebenen individueller und kollektiver Kompetenz: Theoriezugänge und Modellbildung [Impact-relationships between levels of individual and collective competence: Approaches to theory and model building]. In G. Schreyögg & P. Conrad (Eds.), *Management von Kompetenz: Managementforschung* (Vol. 16, pp. 121-161). Wiesbaden, Germany: Gabler Verlag.

Yammarino, F. J., Dansereau, F., & Kennedy, C. J. (2001). A multiple-level multidimensional approach to leadership: Viewing leadership through an elephant's eye. *Organizational Dynamics, 29*(3), 149-163.

Yukl, G. (1981). *Leadership in organizations*. Englewood Cliffs, NJ: Prentice Hall.

Yukl, G. (2002). *Leadership in organizations* (5th ed.). Upper Saddle River, NJ: Prentice Hall.

Yukl, G. (2010). *Leadership in organizations* (7th ed.). Upper Saddle River, NJ: Prentice Hall.

Yukl, G., & Fu, P. P. (1999). Determinants of delegation and consultation by managers. *Journal of Organizational Behavior*, *20*(2), 219-232.

Zajonc, R. B. (1965). Social facilitation. *Science, 149*, 269-274.

2

‘Why Did I Do This?’ – Understanding Leadership Behavior Based on the Dynamic Five-Factor Model of Leadership

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Abstract

Leadership theories referring to complex adaptive system theory (CAS) describe leadership as a dynamic process of interdependent, cooperating agents. However, research on leadership behavior focuses mainly on the leader as an influencing, active agent. This paper offers a different perspective by focusing on factors that influence leadership behavior. A dynamic five-factor model of leadership is introduced. This model identifies: 1) the leader's individual competence, 2) the group, 3) the organization, 4) the context, and 5) the immediate situation as influencing factors on leadership behavior. To address the problem of the procedural nature of leadership behavior, the dynamic five-factor model is combined with a 'scenario'-based approach. The 'scenario' approach focuses on situational developments in a given context, whereby a previous situation influences a leader's behavior in the subsequent situation. By integrating the dynamic five-factor model into a 'scenario' approach, a leader's behavior can be understood in its procedural nature. The practical usability of the dynamic five-factor model and the 'scenario' approach were assessed in a leadership development program with 81 Military Officers. Structured feedback from participants indicated that the dynamic five-factor model and the 'scenario' approach were perceived as helpful and relevant for understanding leadership behavior.

Keywords: leadership, leadership behavior, leadership development, leadership model, leadership theory, management, management development

Introduction

Research in the field of leadership changed its focus in the last two decades. While traditional leadership theories focus on the question 'What makes a good leader?' and how a leader can influence other individuals, groups or organizations, modern leadership theories are based on a system-theoretical, multiple-level approach. Organizations are seen as self-organizing systems in which leadership is one of the influencing variables in a complex adaptive system (CAS), embedded into different networks (Lichtenstein et al., 2006; Uhl-Bien, Marion, & McKelvey, 2007). In a CAS, leadership is not seen as a linear process but rather as a dynamic process of interdependent, cooperating agents (Carley & Hill, 2001; Goodwin, 1994; Kappelhoff, 2004; Uhl-Bien et al., 2007). The system evolves through a constant interaction between the cooperating agents. Each agent influences other agents and is also being influenced by them. The interdependence of different agents in CAS is widely recognized. However, research in leadership behavior focuses mainly on the leader as an influencing, active agent in a CAS. By focusing on leaders as influencing agents, an important aspect of leadership behavior is consistently underestimated. Leadership behavior is not only the result of a leader's independent choices and decisions but also of his/her reaction towards a variety of influencing environmental factors and situational circumstances.

This article focuses on the complex interaction between the leader as an active agent in a CAS who influences other agents and at the same time is being influenced by other active agents (e.g., other people, organizational rules, context factors, situational circumstances). In the first part of this article, the relevant influencing factors on leadership behavior are identified. Based on a review of

current leadership theories and models, a dynamic five-factor model of leadership behavior is developed. This model defines leadership behavior as a function of: 1) the leader's individual competences, 2) the interaction with the group of people he or she is working together with, 3) the organizational rules, structures, and procedures, 4) the general context, and 5) the imminent situation. It is important to note that leaders are not only seen as reactive subjects in this model. A leader's individual competence (factor 1) is a determining factor of his or her behavior. However, the model underlines that leaders are not independent agents and that their behavior is influenced by other factors in a CAS. The dynamic five-factor model of leadership behavior provides insight to why a person is behaving in a certain way in a specific situation. It helps leaders to answer the question: 'Why did I do this?'

Another important aspect of understanding leadership behavior is its procedural nature. Each action is influenced by previous causes. As such, leadership behavior in a particular situation can only be understood if the situational development over time is integrated into the analysis. Many existing leadership models have difficulties addressing this issue in a comprehensible manner (Lord, Brown, Harvey, & Hall, 2001). To address this problem, a 'scenario'-based approach of analyzing leadership behavior is introduced in the second part of this article. This approach focuses on situational developments over time in a given context, whereby a previous situation influences a leader's behavior in the next situation. By combining the 'scenario'-based approach with the dynamic five-factor model of leadership, a leader's behavior can be understood in its procedural nature. Results from an assessment of the practical usability of the

dynamic five-factor model within leadership development programs using the 'scenario' approach are presented. Limitations and implications for future research are presented.

Identifying Influencing Factors on Leadership Behavior

Modern leadership theories referring to complex adaptive systems (CAS) (Lichtenstein et al., 2006; Uhl-Bien et al., 2007) stem from system-theoretical approaches (Luhmann, 1984; Maturana & Varela, 1980; Parsons, 1977) and complexity theory (Katz & Kahn, 1978; Schneider & Somers, 2006). They regard social systems, e.g. organizations, as self-organizing systems (Kauffman, 1993) that develop naturally. The development of a CAS is based on a complex interaction of all aspects influencing these systems. As such, a CAS is a social construct within a specific context (Carley & Hill, 2001; Dooley, 1996; Hosking, 1988; Osborn, Hunt, & Jauch, 2002). Within this context, patterns evolving over time have to be taken into account. Consequently, context history is an important factor to understand the dynamics within a CAS. In such systems, leadership is seen as an emerging process, which evolves by means of dynamic interactions between the factors within the system over time. Therefore, arguably, any agent within the system can assume leadership responsibility and any other agent or context variable is influencing the agent assuming leadership (Bradbury & Lichtenstein, 2000). The strength of this conception of leadership lies in the representation of the complex leadership interactions in social systems. They underline, that leadership behavior is the result of a complex interaction between the leader and its environment. Yet, these models are very complex and remain unspecific when it comes to describing interrelations between the different factors

within the system. A systematic analysis of causes and effects of leadership behavior is difficult and as such, it is almost not possible to derive conclusions for practical purposes.

This problem is addressed by competency models. They offer the possibility for practical recommendations on leadership behavior. Wilkens, Keller, and Schmette (2006) introduced a competency model that distinguishes between competences on different levels: competences on the individual level, on the group level, on the organizational level, and network competences, including context factors such as the interaction with other systems in the environment. Their model is based on multiple-level approaches towards leadership (e.g., Dansereau, Alutto, & Yammarino, 1984; Yammarino & Bass, 1991; Yammarino, Dansereau, & Kennedy, 2001; Yammarino, Dionne, Chun, & Dansereau, 2005). By formulating specific competences for each level, such models can offer qualitative evaluation criteria for successful leadership behavior. Hollenbeck, McCall, and Silzer (2006) presented advantages and disadvantages of competency models in leadership and referred to the fundamental problem of competency models as being detached from the situation. They invoked two arguments that underline this problem. Firstly, the models assume that only a special combination of competences characterizes successful leaders. Secondly, the effect of these competences remain independent of the situation, implying that an increase in these competences often entails better leadership behavior. Hence, the relationship between specific situational circumstances and specific competences remains unclear in competency models. The importance of situational aspects in understanding successful leadership behavior is underlined by Yukl (2001). He outlined that the situation is, beside the

leader and the follower, one of the three main aspects under which leadership behavior can be conceptualized and analyzed at different levels (e.g., the intra-individual level, the dyad, the group level, or the organizational level).

Integrating the positions of these modern theories and models into a conceptual framework of influencing factors on leadership behavior, we can summarize that leadership behavior (LB) is influenced by the leader's individual competences (IC), the environment (E) he or she is working in, and the immediate situation (S) he or she is confronted with. The environmental aspects can be divided into three sub-factors, which are the group of people (G) a leader is working together with, the organization (O) he or she is working in, and the general context (C) he or she is located in. Leadership behavior is a function of the leader's individual competence, the group, the organization, the context, and the situation. These factors are seen as interrelated, yet clearly distinguishable from each other. This leads to the following formula of influencing factors on leadership behavior:

[Insert Figure 1 here]

In the following, each of the five influencing factors is described in more detail and the factors are integrated in a 'dynamic five-factor model of leadership'. Table 1 gives an overview of the five factors of the model, the main components of each factor, as well as practical examples for each of the components. We are not seeking for an exhaustive enumeration and description of all relevant aspects of each factor. The aim is to explain the relevance of the five factors and their influential power on leadership behavior by referring to exemplified findings from theory, empirical research, and practical examples.

[Insert Table 1 here]

Individual Competence

Individual competence includes all individual capabilities, knowledge, and experiences of a leader. Undoubtedly, individual competence is the foundation for successful leadership. An individual has the most direct control over its own behavior. Many studies which examine leadership competences provide typologies or lists of relevant skills and attributes. Abraham, Karns, Shaw, and Mena (2001) for example, found that skills such as communication, team building, problem-solving, and decision-making are important for effective leadership. Kirkpatrick and Locke (1991) stated initiative, intelligence, and business knowledge as key determinants of successful leadership behavior. Ireland and Hitt (1999) added flexibility, strategic thinking, and teamwork. Propp, Glickman, and Uehara (2003) included other leadership core competences such as experience, technical skills, the ability to manage relationships and acknowledgment of informal organizational structure. Brownell (2008) examined a wide range of leadership competences and found team leadership, effective listening, coaching, feedback, conflict management as well as trustworthiness, integrity, positive attitude, perseverance and flexibility amongst the most important skills and abilities.

To identify the main components of this factor, Bolten's (2005) model of international leadership competences was adopted. He defined five key competences for international leaders: *professional competence, strategic competence, individual competence, social competence,* and *intercultural competence*. *Professional competence* refers to all knowledge and abilities related to perform in the current function, such as market knowledge, work knowledge,

technical knowledge, etc. *Strategic competence* includes all knowledge concerning strategic decisions and their implementation within the organization. Risk, cost and profit awareness, knowledge management, problem solving, and decision-making skills are for example part of it. *Individual competence* refers to the ability to perform as an individual and to have the ability for self-development. Self-motivation, stress-resistance, ability for self-criticism, and hierarchy awareness are part of this competence. *Social competence* refers to abilities, which are important in interactions with others. It includes teamwork, empathy, tolerance, to take the initiative, to communicate, and to lead. *Intercultural competences* include the capability to master foreign languages, to possess some knowledge about domestic and foreign cultures as well as intercultural processes, to be open minded to intercultural learning and to be tolerant towards cultural ambiguities.

The Group

The factor 'group' refers to all individuals in the working environment with whom the leader is in interaction. The two main components of this factor are *structure-related* and *process-related* aspects (Seiler & Pernet, 2009). *Structural aspects* relate to the composition of the group, the main objectives and duties that are allocated, and the norms and roles that exist within the group. Hackman (1987) proposed various structural managerial tasks that include the responsibility to define the scope of action of the group, to determine the composition of the group as well as adopting corresponding changes. *Process-related aspects* involve the building of relationships within the group, between the group and their leader, as well as the communication within the group. Findings within the field of intercultural leadership underline the influence of the group factor on leadership. In

intercultural groups, the development of a group culture takes three times longer as compared to monocultural groups (Lehmann & van den Bergh, 2004). Consequently, Stumpf (2005) suggests that leaders should prolong the forming phase to develop adequate manners and norms in intercultural teams.

The 'group think' phenomenon (Janis, 1982) illustrates the influential power of groups on leadership. Due to the dynamic processes that influence the individual to behave according to the will of the group, it is possible that the group as a whole influences the leader and opts for a riskier behavior, as all group members support the risky decision or strategy and none opposes. The pressure for group conformity and the pressure to gain legitimacy are other important aspects of group dynamics leading to group-related leadership behavior (Levine & Moreland, 1998). If a leader wants to be accepted by the group, he or she has to conform to some extent to existing group's norms and is therefore influenced to a certain degree by the pressure of the group (Pinter et al., 2007). Hence, leadership behavior does not depend solely on individual competences but on group dynamics as well.

The Organization

Individuals and groups are typically part of an organization. The four main components that describe this factor are the organization's *strategy*, its *structure*, its *processes*, and its *culture/climate*. Podsiadlowski (2002) illustrates the impact of an organization’s *strategy* on leadership behavior in an international setting. Multinational organizations pursue fundamentally different internationalization strategies, reaching from a cultural dominance strategy from the parent company to a strategy aiming to achieve cultural synergies. Such strategies have a direct impact on the leaders’ behavior, for example, if he or she can choose to apply a country-

specific compensation system, or if he or she has to follow the corporate worldwide system. The importance of *structural aspects* is underlined by Perrow (1970). He stated that effective and ineffective organizational leadership are rooted in the structural features of an organization rather than in the individual leader within an organization. Changes in leadership only make up for very little of organizational success (Lieberson & O'Connor, 1972; Salancik & Pfeffer, 1977) and leaders have very little power in organizations due to organizational structures and situational demands (Vroom & Jago, 2007). Organizational structures predetermine relevant management tasks, such as decision-making processes, or the allocation of resources and responsibilities. Brownell (2008) found that the leader's skills have to match the organizational structure and requirements in order to be effective and successful. *Process* related aspects are, for instance, knowledge management systems, knowledge transfer, or standardized management processes determined by the organization (e.g., hiring procedures, promotion processes, compensation processes, etc.) of which some were described by DiStefano and Maznevski (2000). These processes pave the way leaders have to follow and limit individualized and innovative leadership behavior. The last component is the organizational *culture/climate*. This includes, but is not limited to, aspects such as error management culture (van Dyck, Frese, Baer, & Sonnentag, 2005), feedback culture (London & Smither, 2002), or ethical culture or climate. An organization's ethical climate is inversely related to the severity of ethical problems in the organization, and positively related to the ability to resolve ethical conflicts (Bartels, Harrick, Martell, & Strickland, 1998). Jones and Ryan (1997) found that people tend to act in accordance with their perception of the 'average' moral

standards of others in the organization. This leads to the assumption, that an organization's ethical climate has a mediating effect on ethical leadership behavior.

The above stated examples illustrate that the organization affects leadership behavior in direct and indirect ways and that changes in organizational parameters such as strategy, structure, processes, and culture/climate lead to changes in leadership behavior.

The Context

The term 'context' refers to the environment an organization is embedded, from a historical and current perspective. This includes aspects such as the culture or the current or historical political, economical, and social situation in a specific region. Geopolitical developments may also have an effect on the leadership behavior of an individual working in a particular region. Although the study of such factors is hitherto not a dominant aspect in leadership research, their impact on leadership behavior cannot be underestimated. Brownell (2008) found that a particular setting fosters or constrains particular leadership behavior and abilities and therefore influences the probability that a particular behavior is shown or not. Osborn, Hunt, and Jauch (2002) argue that the systematic combination of both, context and leadership would lead to models that are more robust and a better understanding of leadership in general.

We identified two main components for this factor: *static* and *dynamic* components. *Static* components are stable over a long period of time. Examples are the historical context, or national culture. *Dynamic* components in contrast can be subject to relatively fast changes. Typical examples are new laws and regulations that are introduced, the agreement on international treaties or institutions, political,

economic and social developments, as well as basic factors like changing weather conditions or seasons. The following examples illustrate the postulated relationship between context and leadership behavior.

Hammer and Turk (1987) examined, amongst others, the effect of labor unions and labor rights on leadership behavior. They found that leaders had to follow more standardized rules and regulations in working environments with a unionized labor force. In less unionized markets, leaders had more freedom and decision-making power. Hence, a change in labor law would therefore immediately have an impact on leadership behavior. More evidence for the impact of context factors can be derived from findings within the field of comparative cultural studies (Hall, 1990; Hofstede, 1980; House, Hanges, Javidian, Dorfman, & Gupta, 2004; Triandis, Bontempo, Villareal, Asai, & Lucca, 1988; Trompenaars, 1993). These studies show that people with different cultural background are acquainted to different leadership styles. This has an impact on the leader-follower interaction (e.g., through different problem solving or communication strategies) and therefore on leadership behavior (Soeters & Bos-Baks, 2003; Varoglu, 1998). Other important aspects are historical aspects or geopolitical developments, which can have an impact on a leader's behavior. For example, a manufacturer who wants to set up a production facility in a country where the local population has negative feelings towards his origins needs to consider these circumstances when he is dealing with the local civil authorities or hiring local collaborators.

The Situation

The final factor within the five-factor model is the immediate situation a leader is confronted with. The three main components of this factor are a situation's

clarity, its *familiarity*, and the *pressure* resulting from the situational circumstances. The *clarity* of a situation depends on the availability, the relevance, and the ambiguity of the information at hand to solve a problem or make a decision. Leaders often have to deal with ambiguous situations without having all relevant information for a decision. In such situations, they tend to fall back on proven behavior and to refer to experiences instead of analyzing the specific circumstances of the current situation (Kaempf, Wolf, & Miller, 1993; Morrison, Kelly, Moore, & Hutchins, 1997). *Familiarity* refers to the novelty of a situation, to the degree of previous experiences with similar situations. While familiar situations require less cognitive efforts for a person to decide on the appropriate behavior, less familiar situations require more cognitive efforts (Wickens & Gopher, 1977). *Pressure* refers to all sorts of time pressure, pressure for decision or action and danger/risk, which can cause psychological pressure. Imminent danger may imply that automatic and instinctive behavior takes control over an individual's actions, and that a conscious cognitive control is only possible with great effort. This includes, for instance, scenarios that involve limited time constraints, combating or fleeing from a source of danger, or that put psychological pressure on the decision maker. The obedience experiment by Milgram (1974) is an example for the situational impact on behavior through external pressure for decision and action. It shows that the perceived pressure by a legitimized authority induced human beings to behave contrary to their own norms and values.

Figure 2 is a graphical representation of the five factors influencing leadership behavior and their mutual interrelations.

[Insert Figure 2 here]

Defining the Impact of the Five Factors on Leadership Behavior

After having identified the five factors influencing leadership behavior and their main components, the question remains on how the impact of each of these factors on a leader's behavior can be identified. The definition of the impact of each factor is based on the evaluation of the importance and relevance of the main components of each factor in relation to a particular leadership situation. This evaluation is not an objective process. It is a subjective assessment that leads to an informed and justifiable, yet individual decision. If this decision is transferred into a five-point scale, where 1='no impact', 2='little impact', 3= 'moderate impact', 4='strong impact' and 5='very strong impact', it is possible to quantify the influential power of each of the five factors.

The example of a manager who has to lay-off 20% of his work-force and at the same time has to eliminate one of the four hierarchical levels within his department due to a restructuring process can be used to illustrates the process of defining the impact weight of each of the five factors. Table 2 provides a series of sample questions that can be asked to evaluate the impact weight of each factor in the 'lay-off'-example.

[Insert Table 2 here]

For instance, if the answer to the context related question about the existing labor law indicates that there are many restrictions applying for this case, then the impact from the context on the manager's behavior is higher than if there are no restrictions applying. The same can be said for questions related to the organization regarding given options to the manager on how to save 20% of his personnel related cost. If the organization does not give him another choice than laying-off

his employees immediately, then the organization has a higher impact on his behavior than if he has several options, such as part time work, unpaid leave, etc. In this case, the impact of his individual competences is higher since he can apply his own problem solving skills, experiences, and reflections into his decision. We are not aiming for an exhaustive analysis of this example. The example illustrates that the impact weight of each factor can be defined by analyzing the importance of the main components in relation to a specific situation. The results of this evaluation can be transferred into the pentagon-representation of the five-factor model (see figure 2). Connecting the five values indicating the impact weight of each factor within the pentagon point to point will result in a spider diagram that shows a graphical representation of the impact weight of the five factors influencing leadership behavior. Figure 3 illustrates a spider diagram for a hypothetical situation, where the individual and situational impact on leadership behavior are very strong (5), the group and the organizational impact are moderate (3) and the context impact is low (2).

[Insert Figure 3 Here]

Dynamic Changes over Time - The Scenario-Approach

A problematic aspect of understanding leadership behavior is to analyze dynamic changes over time. In order to be able to analyze and illustrate dynamic changes over time, the 'scenario' approach is introduced. The term 'scenario' is defined as the individual, the group, and the organization in different situations within a particular context. Over time, new situations evolve within the given context and the individual, the group, and the organization have to react to these

circumstances. Figure 4 illustrates the relationships of the five factors within a 'scenario'.

[Insert Figure 4 here]

This method enables a spider diagram to be drawn for every new situation within a scenario. The dynamic changes over time can now be analyzed by comparing the spider diagrams in their sequence of action. Identified differences of the impact weight between the spider diagrams represent the causes for changes in leadership behavior over time. The evolution of a scenario is directly linked to changes in the immediate situational circumstances. For example, if a military platoon is on a patrol in a peace support operation, the scenario dynamics depends on the different situations that the platoon is going through. If the patrol runs as planed and the interaction with the local population is positive (scenario A), the impact weight of the five factors on the platoon leader's behavior is very different from if they are under attack by unknown rebels (scenario B). The spider diagram illustrating the situation before the platoon on patrol interacts successfully with the local population (scenario A) or gets under attack (scenario B) looks the same. The spider diagram representing the next situation (either successful interaction in scenario A or being under attack in scenario B) will look very different. Components such as danger, risk, time pressure, different standard procedures, previous experience of the leader and the group members, etc. differ in the two scenarios and therefore, have a different impact on a leader's behavior. Thus, with the combination of the dynamic five-factor model and the 'scenario' approach, the causes for dynamic changes over time in leadership behavior can be identified, analyzed, and illustrated in a comprehensible way.

The practical usability of the dynamic five-factor model was assessed in 4 leadership development programs at the Swiss Military Academy. Participants included a total of 81 Swiss Military Officers in the ranks of Majors (*N*=32), Lieutenant Colonels (*N*=29), and Colonels (*N*=20). After a theoretical introduction of the dynamic five-factor model and the 'scenario' approach, they analyzed a leader's behavior in a complex case study. First, each of them analyzed the case individually and defined the impact of the five factors on the leader's behavior across 3 different situations that evolved over time. Then, they discussed their results in groups of 4-6 officers and generated a group solution for each of the 3 situations within the scenario. In a concluding plenary session, potential transfers from the findings in the case study into the participants' working environment were discussed.

Participants evaluated the practical usability of the dynamic five-factor model and the 'scenario' approach. In response to the question "How helpful was the dynamic five-factor model and the 'scenario' approach for a better understanding of the behavior of the leader in the case study?", 88.9% (*N*=72) evaluated the model and the 'scenario' approach as 'very helpful' and 11.1% (*N*=9) as 'helpful' (on a scale ranging from 1 to 5, where 1='not helpful at all', 2='not very helpful', 3='a little helpful', 4='helpful', and 5='very helpful'). In response to an open question about the particular advantages working with the dynamic five-factor model and the 'scenario' approach ("Which advantages do you see in applying this method in analyzing leadership behavior?"), 86% stated that the method helped them to develop a more solid line of argumentation to explain the behavior of the leader in the case study, 80% stated that the model helped them to

analyze the complexity of the case study in general, 59% stated that the exercise helped them to reflect on their own leadership behavior in a more structured way, 51% stated that they learned to think of alternatives and to assess a particular situation from different perspectives (individual, group, organizational, contextual, situational), and 48% stated that the model gives them a better understanding of leadership behavior in general (top 5 results). These results show that the dynamic five-factor model of leadership and the 'scenario' approach can be successfully applied in leadership development programs. However, these are only preliminary indicators of the practical usability of the method. Further research is needed to analyze the most beneficial strategies in working with this method in leadership development trainings.

Discussion and Conclusion

In leadership theories referring to CAS, organizations are seen as self-organizing systems in which leaders interact interdependently with other agents and system related aspects within and outside the system. This mutual interrelation is widely recognized. Research in leadership behavior usually focuses on the leader as an influencing, active agent. This article offers a different perspective by focusing on the often-underestimated factors influencing a leader's behavior. The introduced dynamic five-factor model of leadership is an attempt to formulate a comprehensible leadership model that helps to evaluate the relevant factors influencing leadership behavior. By identifying the main components of these factors, it is possible to define the impact weight of each factor on leadership in a particular situation. Combining the model with the 'scenario' approach, dynamic changes over time can be identified, analyzed, and illustrated. Thus, leadership

behavior can be understood in its dynamic nature. This is a significant contribution to the existing literature as well as to the leadership practice. In addition, the graphical representation offers a comprehensible way visualizing the outcomes of the analysis. This not only helps to structure theoretical reflections on leadership, but also offers the opportunity to apply this model directly in practical leadership development programs.

Within the field of leadership research, the dynamic five-factor model provides impetus for new research questions. Can the five-factor model and the postulated impact of the moderating variables be empirically validated? Do leaders weight the impact of the five factors within the same scenario equally? Does cultural background have an influence on the evaluation of the impact weight of the five factors in the same scenario? How can the model be used in leadership development programs and what is its benefit? Preliminary results from the qualitative feedback of 81 Swiss Military Officers provided positive evidence on the practical usability of the five-factor model. However, more systematic empirical research is needed to understand the benefit of the model for leadership development purposes in greater detail.

Critical discussions among researchers and practitioners and further research are needed to provide evidence on the relevance of the five-factor model on leadership behavior. We believe that by applying the dynamic five-factor model combined with the 'scenario' approach, leadership behavior and its dynamic changes over time can be identified, analyzed, illustrated and interpreted in a comprehensible manner without compromising the inherent complexity of every

leadership situation. The model adds to a better understanding of leadership behavior in current leadership research and practice.

References

Abraham, S. E., Karns, L. A., Shaw, K., & Mena, M. A. (2001). Managerial competencies and the managerial performance appraisal process. *The Journal of Management Development*, *20*(9/10), 842–853.

Bartels, L. K., Harrick, E., Martell, K., & Strickland, D. (1998). The relationship about ethical climate and ethical problems within human resource management. *Journal of Business Ethics, 17*, 799-804.

Bolten, J. (2005). Interkulturelle Personalentwicklungsmaßnahmen: Training, Coaching und Mediation [Intercutural personnel development treatments: Training, coaching and mediation]. In G. K. Stahl, W. Mayrhofer, & T. M. Kühlmann (Eds.), *Internationales Personalmanagement* (pp. 307-324). Munich, Germany: Hampp.

Bradbury, H., & Lichtenstein, B. (2000). Relationality in organizational research: Exploring the space between. *Organization Science, 11*, 551−564.

Brownell, J. (2008). Leading on land and sea: Competencies and context. *International Journal of Hospitality Management, 27*, 137-150.

Carley, K., & Hill, V. (2001). Structural change and learning within organizations. In A. Lomi, & E. R. Larsen (Eds.), *Dynamics of organizational societies* (pp. 63−92). Cambridge, MA: AAAI/MIT Press.

Dansereau, F., Alutto, J. A., & Yammarino, F. J. (1984). *Theory testing in organizational behavior: The variant approach.* Englewood Cliffs, NJ: Prentice-Hall.

DiStefano, J. J., & Maznevski, M. L. (2000). Creating value with diverse teams in global management. *Organizational Dynamics*, *29*, 45-63.

Dooley, K. (1996). A nominal definition of complex adaptive systems. *The Chaos Network*, *8*(1), 2-3.

Hackman, J R. (1987). The design of work teams. In J. W. Lorsch (Ed.), *Handbook of organizational behaviour* (pp. 315-342). Englewood Cliffs, NJ: Prentice-Hall.

Hall, E. (1990). *The silent language* (3rd ed.). New York: Anchor.

Hammer, T. H., & Turk, J. M. (1987). Organizational determinants of leader behavior and authority. *Journal of Applied Psychology*, *72*(4), 674-682.

Hofstede, G. (1980). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations* (2nd ed.). Thousand Oaks, CA: Sage.

Hollenbeck, G. P., McCall, M. C., & Silzer, R. F. (2006). Leadership competency models. *The Leadership Quarterly*, *17*, 398-413.

Hosking, D. M. (1988). Organizing, leadership and skilful process. *Journal of Management Studies*, *25*, 147-166.

House, R. J., Hanges, P. J., Javidian, M., Dorfman, P. W., & Gupta, V. (2004). *Culture, leadership, and organizations: The GLOBE study of 62 societies.* Thousand Oaks, CA: Sage Publications.

Ireland, R. D., & Hitt, M. A. (1999). Achieving and maintaining strategic competitiveness in the 21st century: the role of strategic leadership. *The Academy of Management Executive*, *13*(1), 43–57.

Janis, I. L. (1982). *Group think*. Boston: Houghton Mifflin.

Jones, T. M., & Ryan, L.V. (1997). The link between ethical judgement and actions in organizations: A moral approbation approach. *Organizational Science*, *8*, 663-680.

Kaempf, G. L., Wolf, S., & Miller, T. E. (1993). Decision making in the Aegis combat information centre. *Proceedings of the Human Factors and Ergonomics Society 37th Annual Meeting* (pp. 1107-1111). Santa Monica, CA: Human Factors and Ergonomics Society.

Kappelhoff, P. (2004). *Kompetenzentwicklung in Netzwerken: Die Sicht der Komplexitäts- und allgemeinen Evolutionstheorie* [Competence development within networks: The view of complexity theory and general evolution theory]. Retrieved January 20, 2007, from http://www.wiwi.uni-wuppertal.de/kappelhoff/papers/komplex_2004.pdf

Katz, D., & Kahn, R. L. (1978). *The social psychology of organizations*. New York: John Wiley & Sons.

Kauffman, S. A. (1993). *The origins of order: Self-organization and selection in evolution*. Oxford: University Press.

Kirkpatrick, S. A., & Locke, E. A. (1991). Leadership: do traits matter? *The Academy of Management Executive*, *5*(2), 48.

Lehmann, R., & van den Bergh, S. (2004). Internationale Crews: Chance und Herausforderung [International Crews: Chances and challanges]. *io new management*, *3*, 27-32.

Levine, J. M., & Moreland, R. L. (1998). Small groups. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 415–469). New York: McGraw-Hill.

Lichtenstein, B. B., Uhl-Bien, M., Russ, M., Seers, A., Douglas, O., & Schreiber, C. (2006) Complexity leadership theory: An interactive perspective on leading in complex adaptive systems. *E:CO*, *8*(4), 2-12.

Lieberson, S., & O'Connor, J. F. (1972). Leadership and organizational performance: A study of large corporations. *American Sociological Review*, *37*, 119–130.

London, M., & Smither, J.W. (2002). Feedback orientation, feedback culture, and the longitudinal performance management process. *Human Resource Management Review*, *12*(1), 81-100.

Lord, R. G., Brown, D. J., Harvey, J. L., & Hall, R. J. (2001). Contextual constraints on prototype generation and their multilevel consequences for leadership perceptions. *The Leadership Quarterly*, *12*, 311 – 338.

Luhmann, N. (1984). *Soziale Systeme: Grundriss einer allgemeinen Theorie* [Social systems: Outline of a general theory]. Frankfurt, Germany: Suhrkamp Taschenbuch.

Maturana, H. R., & Varela, F. J. (1980). *Autopoiesis and cognition: The realization of the living*. Heidelberg, Germany: Springer Verlag.

Milgram, S. (1974): *Obedience to authority. An experimental view*. New York: Harper.

Morrison, J. G., Kelly, R. T., Moore, R. A., & Hutchins, S. G. (1997). Tactical decision making under stress (TADMUS) decision support system. *Paper presented at the IRIS National Symposium on Sensor and Data Fusion*. Retrieved August 21, 2006, from http://www.pacific-science.com/Images/TADMUS_DSS.pdf.

Osborn, R., Hunt, J. G., & Jauch, L. R. (2002). Toward a contextual theory of leadership. *The Leadership Quarterly*, *13*, 797−837.

Parsons, T. (1977). *Social Systems and the Evolution of Action Theory*. New York: Free Press.

Perrow, C. (1970). *Organization analysis: A sociological view*. Belmont, CA: Wadsworth.

Pinter, B., Wildschut, T., Insko, C. A., Kirchner, J. L, Montoya, R. M., & Wolf, S. T. (2007). Reduction of interindividual-intergroup discontinuity: The role of leader accountability and proneness to guilt. *Journal of Personality and Social Psychology*, *93*(2), 250-265.

Podsiadlowski, A. (2002). *Multikulturelle Arbeitsgruppen in Unternehmen [Multicultural work groups in companies]*. Muenster, Germany: Waxmann.

Propp, D. A., Glickman, S., & Uehara, D. T. (2003). ED Leadership competency matrix: An administrative management tool. *American Journal of Emergency Medicine, 21*(6), 483-486.

Salancik, G. R., & Pfeffer, J. (1977). Constraints on administrator discretion: The limited influence of mayors on city budgets. *Urban Affairs Quarterly, 11*, 475–498.

Schneider, M., & Somers, M. (2006). Organizations as complex adaptive systems: Implications of complexity theory for leadership research. *The Leadership Quarterly, 17*, 351-365.

Seiler, S., & Pernet, G. (2009). Führung interkultureller Teams - kulturelle Unterschiede in Abhängigkeit von Person, Team und Organisation steuern [Leadership in intercultural teams - leading cultural differences in dependence of person, team and organization]. *io new management, 1/2*, 12-16.

Soeters, J., & Bos-Baks, M. (2003). Cross-cultural issues in peacekeeping operations. In: W. W. Britt & A.B. Adler (Eds.), *The psychology of peacekeeping: Lessons from the field* (pp. 283-298). Westport, CT: Praeger.

Stumpf, S. (2005). Synergie in multikulturellen Arbeitsgruppen [Synergies in multicultural work groups]. In G. K. Stahl, W. Mayrhofer, & T. M. Kühlmann (Eds.), *Internationales Personalmanagement* (pp. 115-144). München, Germany: Hampp.

Triandis, H. C., Bontempo, R., Villareal, M., Asai, M., & Lucca, N. (1988). Individualism and collectivism: Cross-cultural perspectives on self-ingroup relationships. *Journal of Personality and Social Psychology*, *54*(2), 323-338.

Trompenaars, F. (1993). *Riding the waves of culture*. London: Economist.

Uhl-Bien, M., Marion, R., & McKelvey, B. (2007). Complexity leadership theory: Shifting leadership from industrial age to the knowledge era. *The Leadership Quarterly*, *18*, 298-318.

van Dyck, C., Frese, M., Baer, M., & Sonnentag, S. (2005). Organizational error management culture and its impact on performance: A two-study replication. *Journal of Applied Psychology*, *90*(6), 1228–1240.

Varoglu, A. K. (1998). *Cross-cultural differences in perception of management processes and their impact on joint training policies of NATO*. Retrieved August 3rd, 2006, from Web site: http://www.kho.edu.tr/english/institute/nato/public_html/sp18.doc.

Vroom V. H., & Jago, A. G. (2007). The role of the situation in leadership. *American Psychologist*, *67*(1), 12-24.

Wickens, C. D., & Gopher, D. (1977). Control theory measures of tracking as indices of attention allocation strategies. *Human Factors*, *19*, 249-366.

Wilkens, U., Keller, H., & Schmette, M. (2006). Wirkungsbeziehungen zwischen Ebenen individueller und kollektiver Kompetenz: Theoriezugänge und Modellbildung [Impact-relationships between levels of individual and collective competence: Approaches to theory and model building]. In G. Schreyögg & P. Conrad (Eds.). *Management von Kompetenz: Managementforschung* (Vol. 16, pp. 121-161). Wiesbaden, Germany: Gabler Verlag.

Yammarino, F. J., & Bass, B. M. (1991). Person and situation views of leadership: A multiple levels of analysis approach. *The Leadership Quarterly*, *2*, 121–139.

Yammarino, F. J., Dansereau, F., & Kennedy, C. J. (2001). A multiple-level multidimensional approach to leadership: Viewing leadership through an elephant's eye. *Organizational Dynamics*, *29*(3), 149-163.

Yammarino, F. J., Dionne, D. D., Chun, J. U., & Dansereau, F. (2005). Leadership and levels of analysis: A state-of-the-science review. *The Leadership Quarterly, 16*, 879-919.

Yukl, G. (2001). *Leadership in organizations* (5th ed.). Englewood Cliffs, NJ: Prentice Hall.

Table 1

Five Factors, Main Components, and Examples

Factor	Components	Examples
individual competence	professional competence	• job knowledge • technological knowledge
	strategic competence	• strategic decision making • knowledge management • problem solving skills
	individual competence	• stress-resistance • self-motivation • hierarchy awareness
	social competence	• empathy • tolerance • communication skills • leadership skills
	intercultural competence	• foreign language knowledge • knowledge of foreign cultures and countries
group	structural aspects	• group composition • objectives / duties • norms / roles
	dynamic aspects	• relationships • communication • group dynamics
organization	strategy	• internationalization, expansion, downsizing • reward / salary / bonus systems • company goals
	structure	• hierarchical structure / responsibilities • infrastructure

Table 1 *(continued)*

Factor	Components	Examples
	processes	• standardized processes • knowledge transfer & management
	culture / climate	• feedback culture • error management culture • ethical climate
context	static components	• history • geography • national culture
	dynamic components	• political , economical and social development • international treaties / law • weather
situation	clarity	• information availability • information ambiguity • information relevance
	familiarity	• preliminary experiences with comparable situations • novelty of the situation
	pressure	• pressure for decision and action • time pressure • danger

Table 2

Sample Questions to Evaluate the Impact of the Five Factors in the Lay-Off Example

Factor	Sample question 1	Sample question 2
Individual competence	Does the manager have personal experience in downsizing projects from the past?	Does the manager have a clear idea of how his team should look like after the restructuring process?
Group	Are there management teams that should not be split off under any circumstances because they are extremely successful?	Is the group rather competitive and an accumulation of individuals or is it a well established and functioning team?
Organization	Does the company offer the opportunity for alternative ways of reducing personnel related costs, e.g. part-time work?	How long is the timeframe the company provides to the manager implementing the changes?
Context	Are there any binding restrictions (e.g. labor law) laying-off people?	How will the society react to the announcement of laying-off people?
Situation	How surprising is the announcement for the manager in the moment in which he hears about it?	In the moment he gets the announcement, does the manager have the feeling that his own position is at risk as well?

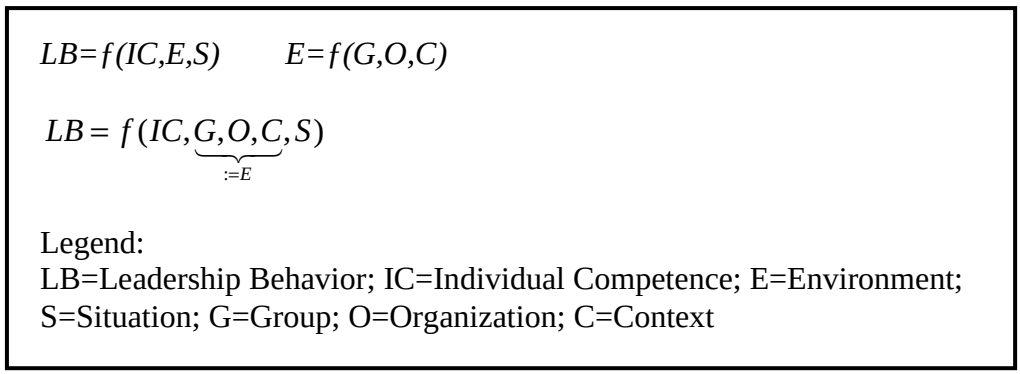

Figure 1. Factors influencing leadership behavior.

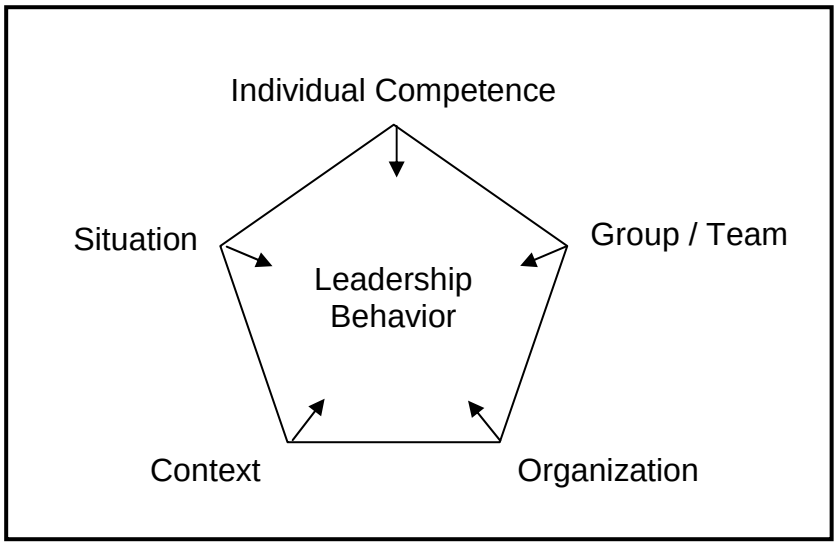

Figure 2. Dynamic five-factor model of leadership.

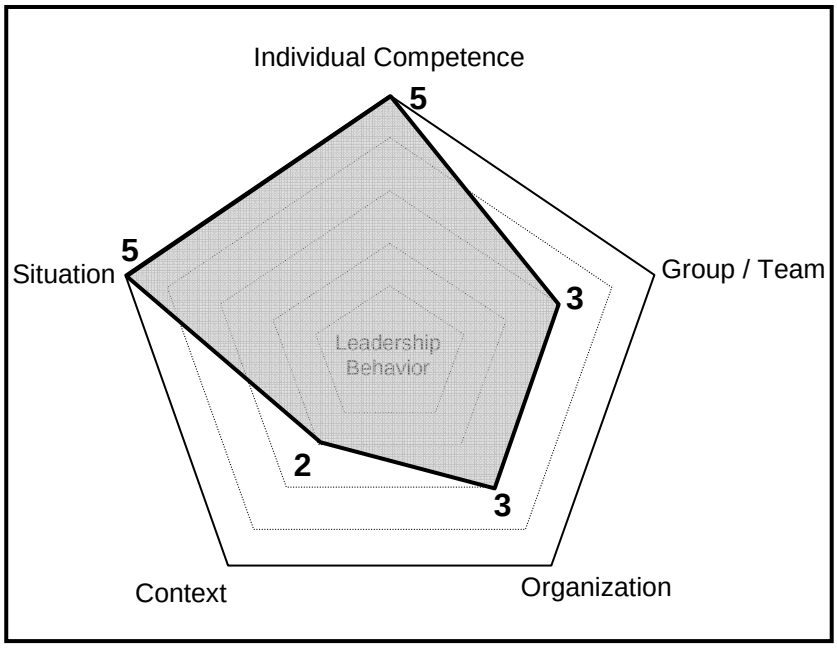

Figure 3. Hypothetical spider diagram (1=no impact, 2=little impact, 3=moderate impact, 4=strong impact, 5=very strong impact).

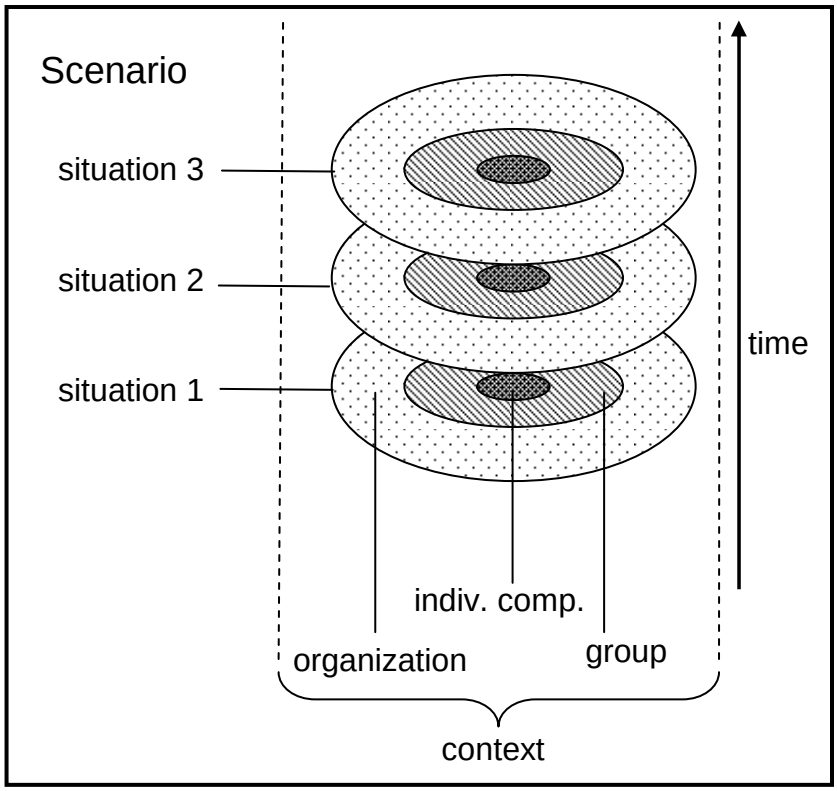

Figure 4. The 'scenario' and its components

3

The Dynamic Five-Factor Model of Leadership: An Empirical Validation of a Holistic Leadership Model

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Abstract

We present results from two empirical validation studies of the ‘Dynamic Five-Factor Model of Leadership‘. The model postulates that leadership behavior is a function of a) leaders’ individual competences, b) the group of people, whom leaders are working together with, c) the organization they are part of, d) the general context they are located in, and e) the immediate situation with which they are confronted. Results of both studies showed that the five factors are interrelated, yet clearly distinguishable from each other. We found significant differences between the importance ratings of the same factor in different situations (inter-situational differences) and between the five factors in the same situation (intra-situational differences). Results also indicated that structural differences in a scenario (high or low time pressure, danger, or formalization) were significant predictors for the importance ratings of the five factors. A comparison between results of study 1 and 2 indicate a high retest reliability. These results support the relevance of the ‘Dynamic Five-Factor Model of Leadership‘.

Keywords: leadership, leadership model, leadership theory, model validation, complexity theory

Introduction

While traditional leadership theories focus on the leader as an influencing person, in modern leadership theories leadership is viewed as one of the many influencing variables in a 'complex adaptive system' (CAS) (Lichtenstein et al., 2006; Uhl-Bien, Marion, & McKelvey, 2007). A CAS is a self-organizing, naturally developing social construct within a specific context (Carley & Hill, 2001; Dooley, 1996; Hosking, 1988; Kauffman, 1993; Osborn, Hunt, & Jauch, 2002). In such systems, leadership is seen as an emerging process, which evolves by means of dynamic interactions among the factors within the system over time. Therefore, arguably any agent or context variable influences the agent assuming leadership (Bradbury & Lichtenstein, 2000). As such, Leadership behavior is the result not only of a leader's independent choices and decisions but also of his or her reactions to a variety of influencing environmental factors and situational circumstances. Under these assumptions, research in leadership cannot merely focus on the importance of the leader as an influencing, active agent. It has to focus on the complex interactions between the leader as an active agent influencing others and at the same time being influenced by other active agents, contextual factors, and situational circumstances. The strength of such a conceptualization of leadership lies in its representation of the complex interactions in social systems. One of the problems with leadership models referring to CAS theory is that they are highly complex and remain unspecific when it comes to describing interrelations among factors within a CAS (Seiler & Pfister, 2009). As such, the predictive potential of these models in explaining leadership behavior in a specific situation is limited. In order to address this issue, Seiler and Pfister (2009)

developed a ‘Dynamic Five-Factor Model of Leadership’, which was based on Seiler’s (2007) initial ideas on aspects influencing leadership behavior in an intercultural context. The ‘Dynamic Five-Factor Model of Leadership’ postulates that leadership behavior (LB) is influenced by the leader’s individual competences (IC), the environment (E) he or she is working in, and the immediate situation (S) he or she is confronted with. Environmental aspects (E) are divided into three subfactors, namely are the group of people (G) leaders are working together with, the organization (O) they are working in, and the general context (C) they are located. Based on this model, leadership behavior is a function of the leader’s individual competence, the group, the organization, the context, and the situation, whereby these factors are seen as interrelated, yet clearly distinguishable from one another. This leads to the following formula for factors influencing leadership behavior (see Figure 1):

[Insert Figure 1 here]

The factor ‘Individual Competence’ refers to the capabilities, knowledge, and expertise of a leader; the factor ‘Group’ refers to all individuals in the working environment with whom the leader interacts with; the factor ‘Organization’ refers to aspects such as organizational strategy, structure, processes, culture, and climate; the factor ‘Context’ refers to the general (relatively stable) environment in which an organization is embedded, from a historical and present perspective; the factor ‘Situation’ refers to immediate (fast changing) situational circumstances a leader is confronted with (for detailed descriptions of the five factors, see Seiler & Pfister, 2009). In order to identify the impact of each of these five factors on leadership behavior, the importance of each factor in a particular scenario is

evaluated based on a five-point scale, where 1 = no impact, 2 = little impact, 3 = moderate impact, 4 = strong impact, and 5 = very strong impact. This allows the calculation of the influential power of each factor. It is important to note that this analysis is not an objective process but a subjective assessment, which leads to an informed and justifiable, yet individual, result.

Preliminary findings regarding the practical usability of the model were promising. A group of Swiss military officers attending a leadership development program were taught how to analyze a complex case by applying the 'Dynamic Five-Factor Model of Leadership'. They evaluated the model as a very helpful tool for a better understanding of the leader's behavior in the case study. They also found the model helpful in helping them to analyze the complexity of the case, to develop a more solid line of argumentation to explain the behavior of the leader, to reflect on their own leadership behavior, and to have a better understanding of leadership behavior (Seiler & Pfister, 2009). While these findings were noteworthy, the model has yet to be empirically validated. To address this limitation, we conducted two studies to validate the 'Dynamic Five-Factor Model of Leadership' wich are described in this paper.

The Validation Approach

We validated the model based on four criteria: 1) 'inter-situational differences', 2) 'intra-situational differences', 3) 'factor predictability', and 4) test reliability.

To test for 'inter-situational differences', we analyzed if the impact weights of the five factors varied from one leadership scenario to another. If the impact weights did not vary between scenarios (e.g., the impact weight of the factor

'group' would be rated as 3 in all leadership scenarios), the model would not provide any differentiating information regarding the impact of the five factors on leadership behavior in different leadership scenarios. However, if there were significant differences between the impact weights of the five factors in different leadership scenarios, analyses of these differences can help to understand why a leader behaved in a certain way in a given point in time.

H1: There are significant differences between the impact weights of the same factor in different leadership scenarios. This hypothesis is applied to all five factors.

To test for 'intra-situational differences', we analyzed if the impact weight of one factor was dependent on the impact weight of another factor within the same scenario. If this would be the case, some of the factors could be eliminated, as their impact weight could be predicted by the impact weight of other factors. Then, the complexity of the model could be reduced. Even though the five factors are interrelated, we assumed that the impact weight of one factor within a leadership scenario cannot be systematically predicted by the impact weight of another factor within the same scenario.

H2: There are significant differences between the impact weights of the five factors within the same leadership scenario.

To test for 'factor predictability', we introduced three variables, which can be used to characterize structural aspects of a specific scenario: time pressure, danger, and formalization. If such structural aspects of a specific scenario would have a systematic impact on the importance rating of the five factors, the influence of the five factors on leadership behavior could be predicted by analyzing the

structural aspects of a specific scenario, regardless of the content of the scenario. This would provide new possibilities in anticipating leadership behavior in future scenarios or in analyzing causes for a particular behavior post-hoc. The predictive ability of the model has important implications for leadership research and practice. Based on the model, leaders could analyze the anticipated structural aspects of an upcoming task and predict the impact of the five factors on their behavior.

Influence of Time Pressure on the Five Factors

Under time pressure the quality of information available in a situation becomes increasingly important as people reduce information search and processing (Ahituv, Igbaria, & Sella, 1998) and give more weight to accessible negative information (Ben-Zur & Breznitz, 1981). At the same it is important that no unexpected negative events occur which lead to even more time pressure. This implies that perceived high time pressure leads to a higher impact of the factor 'Situation' on leadership behavior than low time pressure. An important driver for intuitive reactions is experiences in the past and learned or trained behavior patterns (Calderwood, Klein, & Crandall, 1988). This indicates that high time pressure leads to an increased importance of the factor 'Individual Competences' and experiences of leaders (Ahituv et al., 1998). Findings from different studies underline that decision making becomes more centralized and autocratic under time pressure (Bass, 1960, 2008; Hermann, 1972) and that the more communicative people are, the more influential they are in completing a group task under time pressure (Isenberg, 1981). Hence, under time pressure, a leader's individual problem solving competence and communication skills become more important. The relationship between time pressure and the factors 'Group',

‘Organization’, and ‘Context’ are unclear. Time pressure can either lead to a stronger influence of team members on their leader through a more intense leader-member exchange (Kinicki & Vecchio, 1994), or the influence of the group can be minimized through a greater autonomy and authority of the leader in problem solving and decision making. Time pressure can also increase the level of arousal and psychological stress of groups (Janis, 1983; Janis & Mann, 1977), which may impact the leader in an unpredictable way. Organizational structures, processes, or systems can either foster or hinder adequate leadership behavior depending on experiences and preparation to work under time pressure (Hannah, Uhl-Bien, Avolio, & Cavarretta, 2009). Hence, it is not possible to formulate a general direction of the relationship between the factor ‘Organization’ and time pressure. The same is applicable to the factor ‘Context’: context factors can have a strong impact on behavior under time pressure if they are related to each other (e.g., when a mayor has to evacuate the city because of flooding caused by heavy rainfall) or they have no impact if they are not related to each other (e.g., the general context may have no impact on an office manager’s short-term behavior when he/she has an unforeseen task to complete under high time pressure).

H3: Perceived time pressure in a specific scenario is a positive predictor for the perceived importance of the factors ‘Individual Competence’ and ‘Situation’.

Influence of Danger on the Five Factors

Dangerous situations present unique contingencies and normative constraints on leadership processes. Such situations are often novel and are accompanied by insufficient information (Hannah et al., 2009). Leadership

behavior can either intensify or attenuate the possible negative consequences of danger depending on the situational affordances a leader reacts to. In addition, the levels of emotional arousal and intuitive/emotional reactions increase (Sorokin, 1943). This implies that perceived danger leads to a higher impact of the factor ‘Situation’ as situational circumstances become the main drivers of behavior under dangerous circumstances. Perceived danger is also positively related to the impact of the factor ‘Individual Competence’. Hamblin (1958) found that a leader’s impact on group decisions is greater during crisis situations than during non-crisis situations and that the problem solving skills of individuals are good predictors of their influential power. Several individual leadership strengths such as force of will, influence, charisma, experience, decisiveness (Grant & Mack, 2004) or trust, managing expectations, communicating honestly and openly, dealing with external pressure, considering multiple perspectives, making wise and rapid decisions, and taking courageous actions (James & Wooten, 2005) have also been postulated as crucial aspects of successful crisis management. Gal and Jones (1985) found that strong, confident, and deliberate leaders can reduce the level of stress among followers and increase the group’s confidence to perform in dangerous contexts. Collectively, these findings suggest a positive relationship between perceived risks and ‘Individual Competence’. Similar to time pressure, the relationship between danger and the factors ’Group’, ’Organization’, and ’Context’ are unclear. The influence of the factor ‘Group’ on leadership behavior can be strong if (some) group members have, e.g., experience in overcoming similar dangerous situations (Ahituv et al., 1998). Under such circumstances, the leader may have to rely on group members’ opinions. If the group has little experience and waits for the

leader's decision on the next steps, the group has little to no impact on the leader's behavior and accepts his/her autocratic decision (Bass, 2008). If group members start to panic, they may have a negative but strong impact as they start to behave less effectively (Kolditz, 2007; McKean, 1994). Hence, it is not possible to conclude if perceived danger has an influence on the importance of the factor 'Group'. An organization can anticipate dangerous situations and be prepared by having rules, regulations, policies, and well trained standard procedures, which guide leadership behavior (Grant et al., 2007; Hannah et al., 2009). In this case, the factor 'Organization' has a positive impact on leadership behavior (Chakravarthy, 1982; Dunn, Lewandowsky, & Kirsner, 2002; Marks, Zaccaro, & Mathieu, 2000). If an organization has no specific practices in place for dangerous circumstances or is unable to collect, process, and distribute important information, this factor will have little impact on leadership behavior. In the worst case, organizational systems and processes will break down (Hannah et al., 2009). This would have fatal consequences when organizational resources are detrimental for success (Quarantelli, 1988; Turner, 1976). We assumed that 'Context' will have an impact if danger is related to context aspects (e.g., being on a military patrol in hard-fought territory) (Hannah et al., 2009), but it will have no impact if danger is not related to general context aspects (e.g., an unexpected fire in an office building).

H4: Perceived danger in a specific scenario is a positive predictor for the perceived importance of the factors 'Individual Competence' and 'Situation'.

Influence of Formalization on the Five Factors

A third variable that characterizes the structure of a situation is the degree of formalization with which a leader is confronted. Tosi (1991) defines formalization as the level of constraint on member behavior caused by existing rules, procedures, and policies. A high degree of formalization often leads to uniform, clearly defined, binding expectations regarding appropriate behavior, regardless of individual preferences or competences. According to Jaworki and Kohli (1993), formalized procedures result either from organizational expectations, regulations and policies (e.g., standard procedures, etiquette, organizational culture, etc.) or context-related aspects (national cultural expectations, traditions, international agreements and expectations, local and international law, etc.). Shamir (1999) named several organizational characteristics that increase the degree of formalization, such as clearly defined routine tasks, defined communication flow, and use of technology. Stable, predictable environments lead to controlled, highly formalized, standardized, and mechanized organizations. In highly formalized activities (e.g., presidential inauguration, religious services, etc.), the impact of national/organizational cultures, regulations, laws, traditions, etc. on leadership behavior is high. Therefore, the factors ‘Organization’ and ‘Context’ are assumed to have a high impact on leadership behavior in highly formalized situations. Research indicates that personality and charisma play a minor role in highly formalized situations (Shamir, 1999; Tosi, 1991). However, the relationship between individual characteristics and behavior in highly formalized situations is not clearly understood yet (for a review, see Cooper & Withey, 2009). MacIntosh and Doherty (2010) found a positive correlation between formalization and staff

competences, and it has been found that formalization helped to cope with difficult situations (Mintz, 1951). On the other hand, Sherman and Smith (1984) found that formalization decreases intrinsic motivation. Based on these findings, Auh and Menguc (2007) as well as Raub (2008) concluded that formalization can have mixed effects on performance. Hence, it is difficult to formulate specific assumptions about the relationship between the degree of formalization and the factor ‘Individual Competence’. It can be argued that high formalization dictates individual behavior; which suggests a negative relationship between the two variables. It also can be argued that individual behavior is always influenced by individual characteristics, even in highly formalized situations; which suggests a positive relationship between the two variables. The same arguments apply to the factor ‘Group’. Formalization can increase group performance (Auh & Menguc, 2007) and can foster the integration of subgroups which leads to increased group productivity (Ayers, Dahlstrom, & Skinner, 1997; Nakata & Im, 2010). On the other hand, formalization can have negative effects on creativity and decrease group performance (Fredrickson, 1986; Hartline, Maxham, & McKee et al., 2000; Kirca, Jayachandran, & Bearden, 2005). The relationship between formalization and ‘Situation’ is unclear as well. It can be assumed that a high degree of formalization minimizes the importance of situational circumstances. However, if the situational circumstances are strong (e.g., an unexpected life-threatening risk), the influence of the situation will be strong, regardless of the degree of formalization.

H5: Perceived formalization in a specific scenario is a positive predictor for the perceived importance of the factors 'Organization' and 'Context'.

Finally, to test for test-test reliability, we performed the same questionnaire survey with two comparable samples at two different points in time. We assumed that comparable samples (similar cultural background, age- and gender-distribution, education, language) would evaluate the same scenarios similarly under similar circumstances.

H6: There are no significant differences between comparable groups on the evaluation of the influential power of the five factors in the same scenario.

Study 1

Method

Participants

A total of 104 participants between 19 and 33 years of age from the Swiss Federal Institute of Technology (ETH Zurich) (n = 51), the University of Zurich (n = 39), and the Swiss Military Academy (n = 12) were recruited. These participants consisted of students attending a course on Leadership at ETH Zurich. Of the 104 participants, two were excluded due to incomplete responses. The final sample included 102 participants (M_{age} = 23.7, SD = 2.71) and consisted of 58 males (56.9%) and 44 females (43.1%). Thirty-two participants (31.3%) had prior leadership experience in managing subordinates, ranging from 1 to 380.

Instrument

The questionnaire consists of 24 leadership scenarios from various contexts (e.g., commanding a firefighter brigade or a cargo ship, managing a nuclear power plant, managing a multinational company, dealing with crisis, etc.). Time pressure, danger, and formalization were systematically manipulated with 8 different combinations (e.g., combination 1 = high time pressure, high danger, high formalization; combination 2 = high time pressure, high danger high, low formalization, etc.). Each of the 8 combinations was included in 3 situations, which resulted in a total of 24 different leadership scenarios. The sequence of these scenarios was randomized.

For each scenario, participants were asked the following question: "How strongly is your behavior influenced by each of the following five factors?" if they would be the person-in-charge. They had to evaluate the impact of each of the five factors on their behavior on a five-point scale ranging from 1 (*no impact*) to 5 (*very high impact*). They also had to evaluate the degree of time pressure, danger, and formalization in each situation using a five-point scale ranging from 1 (*no impact at all*) to 5 (*very high impact*) (see Appendix for two sample pages of the questionnaire).

Procedure

Data for Study 1 were collected during one of the lectures in November 2008. The purpose of Study 1 was explained to the participants, and those who agreed to participate were asked to fill up the questionnaire. Participation was strictly voluntary, and all responses were kept confidential. Participants were also informed that they could refuse or discontinue participation at any time. The

questionnaire was administered in German as all participants were fluent in German.

Data Analysis

To test for inter- and intra-situational differences (H1 and H2), we conducted two-way repeated measures ANOVA, with 'Leadership Scenario' (24 scenarios) and 'Influencing Factor' (five factors) as independent variables. Post-hoc pairwise comparisons were applied to identify the number of significant differences between the same factors over the 24 scenarios and within each situation. Because of the large number of multiple pairwise comparisons, the significance level was set at $p < .01$. To test the influence of the three structural variables time pressure, danger, and formalization on each of the five factors (H3, H4, and H5), we conducted separate multiple regression analysis.

Results

Inter- and Intra-Situational Differences

In line with H1 and H2, repeated measures ANOVA yielded significant main effects for 'Leadership Scenario', $F(15.74, 1589.98) = 28.193$, $\eta^2=.415$, $p < .001$ and for 'Influencing Factor', $F(3.46, 346.05) = 71.56$, $\eta^2=.218$, $p < .001$. In addition, there was a significant interaction effect for 'Leadership Scenario' x 'Influencing Factor', $F(38.93, 3932.11) = 23.29$, $\eta^2=.187$, $p <.001$. Mauchly's test indicated that the assumption of sphericity had been violated for main effects, 'Leadership Scenario', $\chi^2(275) = 467.57$, $p <.001$, and 'Influencing Factor', $\chi^2(9) = 37.73$, $p < .001$, and for interaction effects, 'Leadership Scenario' x 'Influencing Factor', $\chi^2(4277) = 6201.42$, $p < .001$. Therefore, degrees of freedom were corrected before conducting the analyses using Greenhouse-Geisser estimates of

sphericity for the main effects, 'Leadership Scenario', ε = .04 and 'Influencing Factor', ε = .01, as well as for the interaction effect, 'Leadership Scenario' x 'Influencing Factor', ε = .25.

Post-hoc analysis using pairwise comparison for 'Leadership Scenario' showed significant differences (p < .01) for 46.7% of comparisons in 'Individual Competence', 65.2% in 'Group', 58.3% in 'Organization', 65.9% in 'Context', and 55.4% in 'Situation', suggesting that there were no systematic dependencies of each of the five factors across the 24 leadership scenarios. Post-hoc analysis using pairwise comparisons for 'Influencing Factor' indicated significant differences (p < .01) for 54.2% of comparisons between 'Individual Competence' and 'Group', 70.8% between 'Individual Competence' and 'Organization', 75.0% between 'Individual Competence' and 'Context', 41.7% between 'Individual Competence' and 'Situation', 75.0% between 'Group' and 'Organization', 79.2% between 'Group' and 'Context', 62.5% between 'Group' and 'Situation', 58.3% 'Organization' and 'Context', 62.5% between 'Organization' and 'Situation', and 66.8% between 'Context' and 'Situation', suggesting that there were no systematic dependencies between two or more factors within a particular leadership scenario.

[Insert Table 1 here]

Relationship between Time Pressure, Danger, Formalization, and the Five Factors

Table 1 shows the means, standard deviations and intercorrelations among the variables in Study 1. We conducted multiple regression analyses to examine the influence of time pressure, danger, and formalization on each of the five factors. We included variables with β > .1 as predictors because we considered the predictive power of β < .1 as not relevant. Results (see Table 2) showed that time

pressure and danger were positive predictors for ‘Individual Competence’. Formalization was a positive predictor for ‘Organization’. Danger and formalization were predictors for ‘Context’. Time pressure and danger were predictors for ‘Situation’. However, none of the three structural variables were predictors for ‘Group’. These results were in line with H3 and H4 and partially in line with H5. A closer analysis of the relationship between the structural variable danger and the factor ‘Context’ showed that danger was a predictor for ’Context’ when danger was found in the general context (e.g., extreme flooding after heavy rainfalls). However, danger was not a predictor for ’Context’ when danger was a consequence of fast changing situational aspects (e.g., sudden outbreak of fire in an office building).

[Insert Table 2 here]

Study 2

Method

Participants

A total of 105 participants between 20 and 40 years of age from ETH Zurich (n = 38), University of Zurich (n = 47), and the Swiss Military Academy (n = 18) were recruited. These participants consisted of students attending a course on Leadership at ETH Zurich. Of the 105 participants, two were excluded due to incomplete responses. The final sample included 103 participants (M_{age} = 23.75, SD = 4.43) and consisted of 68 males (66.0%) and 37 females (34.0%). Thirty-one participants (30.1%) had prior leadership experience in managing subordinates, ranging from 3 to 300.

Instrument

The questionnaire used in Study 2 was similar to Study 1 but with the following modifications: In 11 of the 24 leadership scenarios, the structural variables of the situation were modified (changes in time pressure, danger, and formalization). Modifications were made because the manipulation of the three variables did not show the anticipated results in these situations in Study 1. The other 13 situations were not modified.

Procedure

Procedures used for data collection in Study 2 were the same as Study 1. Data for Study 2 were collected in May 2009 from a different sample than Study 1.

Data Analysis

Data from Study 2 were analyzed using the same statistical methods for H1 to H5. To test the reliability of the model (H6), we conducted Mann-Whitney U tests to determine if the five factors were rated similarly in unmodified leadership scenarios in both Study 1 and Study 2. Follow-up analyses using chi-square were conducted to compare differences between the frequency of significant changes in the ratings of unmodified scenarios and the frequency of significant changes in the ratings of modified scenarios. This allowed us to determine the model's sensitivity towards structural changes in leadership scenarios.

Results

Inter- and Intra-Situational Differences

In line with H1 and H2, repeated measures ANOVA yielded significant main effects for 'Leadership Scenario', $F(17.06, 1723.04) = 23.48$, $\eta^2 = .336$, $p < .001$ and for 'Influencing Factor', $F(3.07, 310.17) = 58.22$, $\eta^2 = .189$, $p < .001$. In

addition, there was a significant interaction effect for 'Leadership Scenario' x 'Influencing Factor', $F(37.589, 3796.51) = 20.30$, $\eta^2 = .208$, $p < .001$. Mauchly's test indicated that the assumption of sphericity had been violated for main effects, 'Leadership Scenario', $\chi^2(275) = 394.28$, $p < .001$, and 'Influencing Factor', $\chi^2(9) = 55.66$, $p < .001$, and for interaction effects, 'Leadership Scenario' x 'Influencing Factor', $\chi^2(4277) = 6301.67$, $p < .001$. Therefore, degrees of freedom were corrected before conducting the analyses using Greenhouse-Geisser estimates of sphericity for the main effects, 'Leadership Scenario', $\varepsilon = .04$ and 'Influencing Factor', $\varepsilon = .01$, as well as for the interaction effect, 'Leadership Scenario' x 'Influencing Factor', $\varepsilon = .25$.

Post-hoc analyses using pairwise comparisons for 'Leadership Scenario' showed significant differences ($p < .01$) for 46.7% of comparisons in 'Individual Competence', 65.0% in 'Group', 60.5% in 'Organization', 63.8% in 'Context', and 65.2% in 'Situation', suggesting that there were no systematic dependencies of each of the five factors across the 24 leadership scenarios. Post-hoc analysis using pairwise comparisons for 'Influencing Factor' showed significant differences ($p < .01$) for 62.5% of comparisons between 'Individual Competence' and 'Group', 66.8% between 'Individual Competence' and 'Organization', 75.0% between 'Individual Competence' and 'Context', 54.2% between 'Individual Competence' and 'Situation', 70.8% between 'Group' and 'Organization', 62.5% between 'Group' and 'Context', 70.8% between 'Group' and 'Situation', 70.8% 'Organization' and 'Context', 62.5% between 'Organization' and 'Situation', and 66.8% between 'Context' and 'Situation', suggesting that there were no systematic dependencies between two or more factors within a particular leadership scenario.

[Insert Table 3 here]

Relationship between Time Pressure, Danger, Formalization, and the Five Factors

Table 3 shows the means, standard deviations and intercorrelations among the variables in Study 2. We found similar results for the predictive direction of the three structural variables, time pressure, danger, and formalization on the five factors as with Study 1. The predictive power of the three structural variables increased in Study 2 (see Table 4). This supports H3, H4, and partially H5. The relationship between danger and 'Context' was of the same nature as in Study 1: Danger was a predictor for 'Context' if it occurred in a general context, but not when it was a consequence of fast changing situational aspects.

[Insert Table 4 here]

Reliability of the Five Factors

To compare results of the five factors between Study 1 and Study 2, we conducted separate Mann-Whitney U tests. The evaluation of the factor 'Individual Competence' in scenario 1 in Study 1 was compared to the evaluation of the same factor in the same scenario in Study 2. This procedure was applied to all factors in all 24 leadership scenarios. Table 5 shows in which leadership scenarios which of the factors were evaluated significantly different in Study 1 and Study 2 and in which situations structural changes were made in Study 2. Results from Man-Whitney U tests indicated no significant differences in 87.7% of the cases in unmodified leadership scenarios between Study 1 and Study 2, suggesting high test-test reliability. When descriptions of the leadership scenarios were modified (modifications in time pressure, danger, or formalization), significant differences between Study 1 and Study 2 were found in 49.1% of the cases. Chi-square

analyses yielded significantly more differences among the five factors between Study 1 and Study 2 when the description of the leadership scenarios were modified (x^2 = 9.89, df = 1, p < .01). In line with hypothesis 6, these findings suggest that the five factor model is stable when no changes were made to the content of a particular scenario. In addition, these findings also suggest that the five factor model is sensitive to structural changes in a leadership scenario.

[Insert Table 5 here]

General Discussion

We validated the "Dynamic Five-Factor Model of Leadership" (Seiler & Pfister, 2009) and found strong empirical evidence for the relevance of the model in understanding leadership behavior. Our findings indicate significant differences between the five factors in the 24 leadership scenarios (inter-situational differences) and significant differences between the five factors within the same scenario (intra-situational differences). These findings suggest that the impact of one factor can neither be predicted by the impact of another factor within the same leadership scenario nor by the impact of the same factor in a different leadership scenario. In addition, we also found significant interaction effects between the five factors and leadership scenario, suggesting that the relative importance of the factors varies between different scenarios. A factor can be rated as more important than another factor in one scenario, while it is rated as less important in another.

This is influenced by structural differences such as time pressure, danger, or formalization. Results from multiple regression analyses in Study 1 and Study 2 indicated that the effects of structural differences such as high or low time pressure, danger, and formalization lead to systematically different evaluations of

the influence of the five factors on leadership behavior. Time pressure and danger were significant predictors for the factors ‘Individual Competence’ and ‘Situation’. Danger was also a significant predictor for the factor ‘Context’, but only when the general context was dangerous, and not when danger was a consequence of fast changing situational aspect. Formalization was a significant predictor for the factors ‘Organization’ and ‘Context’. None of the structural variables was a relevant predictor for the factor ‘Group’. In Study 2, results showed better manipulation of the three structural variables and stronger effects (except the effect from time pressure on ‘Individual Competence’).

These findings support our hypothesis regarding the relationship between the five factors and the three structural variables. If time pressure and danger are high, individual competences and situational aspects have more impact on a leader’s behavior than when they are low. If leaders have to act in a dangerous context, contextual aspects are also evaluated as having a high impact on leadership behavior. High perception of danger is a particularly good predictor for a high impact of situational aspects on leadership behavior. These findings lead to the conclusion that people are more likely to focus on their own competences and to be driven by contextual and situational aspects under high time pressure and danger. On the other hand, high formalization leads to a higher impact of organizational and contextual factors. High formalization is a particularly good predictor for a high impact of organizational aspects. This indicates that people apply organizational rules, norms, and values in formalized scenarios, and are less driven by their own competences or situational circumstances.

These findings support the assumption that the influence of the five factors on leadership behavior can be predicted by analyzing the structural aspects of a specific scenario, regardless of the content of the scenario. If this is the case, leaders can anticipate which of the factors influence their behavior in a future scenario by analyzing the structural variables of an upcoming scenario and actively control the impact of the important factors on their behavior. We assume that this would lead to more informed and less spontaneous/unreflected behavior, in particular in scenarios with high time pressure and danger. In addition, causes for leadership behavior can be analyzed systematically based on a post-hoc approach, offering great potential for effective 'lessons learned' in leadership development programs or in after-action reviews.

Results from the present study also indicated that the 'Dynamic Five-Factor Model of Leadership' is reliable and sensitive to structural changes in leadership scenarios. Test-test analyses showed no significant differences in 87.7% of the factors in unmodified leadership scenarios between Study 1 and Study 2, indicating high test-retest reliability. These results indicate that the findings can be generalized to a comparable population. In addition, we also found that the model is sensitive to structural changes: if the structure (not the content) of a leadership scenario in Study 2 was modified, factors of the scenario were evaluated significantly different than in unmodified scenarios. This highlights the predictive characteristics of the structural aspects within a scenario with regard to the influencing power of the five factors on leadership behavior.

Some limitations have to be considered. Firstly, the predictive characteristics of the structural variables time pressure, danger, and formalization

was low to medium (highest β = .433). Although our results were in line with the hypothesized effects and were replicated in Study 2, other aspects have to be considered as important influencing variables on the evaluation of the five factors. The holistic nature of leadership makes it difficult to identify and to control influencing variables on a leader's behavior. However, results from the present study showed that the structural aspects of a scenario have a systematic influence on the evaluation of the importance of the five factors within the 'Dynamic Five-Factor Model of Leadership', which support the relevance of the model in understanding leadership behavior.

A second limitation is that only about 30% of the participants in Study 1 and Study 2 had prior leadership experience. We compared results of people with prior leadership experience to those without leadership experience and found no systematic differences in any of the compared criteria in both studies (evaluation of the five factors and the three structural variables time pressure, danger, and formalization). We incorporated a variety of leadership scenarios from different backgrounds, and assumed that even people with leadership experience were novices in the presented scenarios. Further research should address the impact of prior leadership experiences in evaluating the importance of the five factors in a particular situation.

Findings from the present study also provide impetus for future research. An important research goal is the clarification of the relationship between the perceived influence of the five factors on leadership behavior and leadership behavior itself. Is the 'Dynamic Five-Factor Model of Leadership' a predictive model for leadership behavior? Or in other words: Are leaders behaving in a

different way depending on the evaluation of the influential power of the five factors? Findings from previous research (e.g., Field, Read, & Louviere, 1990) indicate that different perceptions of situational attributes can affect leaders' decision making processes and behavior. In addition, it is important to determine cultural influences on the evaluation of the five factors. Do cultural differences influence the perception of which factors influence leadership behavior in a particular situation? Differences in situational affordances may arise among others from cultural differences in the construal of situations (Church, Katigbak, & Del Prado, 2010; Heine, 2001; Morling, Kitayama, & Miyamato, 2002; Reis, 2008). The importance of the relationship between culture and behavior has been illustrated and is widely recognized (e.g., Hofstede & McCrae, 2004; House, Hanges, Javidian, Dorfman, & Gupta, 2004). Understanding the relationship between a leader's cultural background and his/her situational perception is an important research goal in intercultural leadership research as it would shed light on the mediating relationship between 'cultural differences' and 'behavior'.

Conclusion

Leadership theories referring to CAS-theory define organizations as self-organizing systems in which leaders interact interdependently with other agents and system-related aspects within and outside the system. Therefore, leadership research can not only focus on leaders as active, influencing agents, it also has to focus on the complex interaction between the leader as an active agent influencing others and at the same time being influenced by other active agents and situational circumstances. The 'Dynamic Five-Factor Model of Leadership' is an attempt to formulate a comprehensive leadership model that focuses on this complex

interaction by evaluating the influence of a) the leader's individual competences, b) the group, c) the organization, d) the general context, and e) the immediate situation on leadership behavior. Findings from previous research provide positive evidence regarding the practical usability of the model in leadership development programs (Seiler & Pfister, 2009). Results from the present study provide empirical evidence to support the validity of the model, illustrating that the five factors are related, yet clearly distinguishable from each other, that the model is reliable and that structural variables (time pressure, danger, formalization) have predictive abilities for the evaluation of the importance of the five factors. Overall, these findings support the relevance of the 'Dynamic Five-Factor Model of Leadership' in understanding the influencing factors on leadership behavior.

References

Ahituv, N., Igbaria, M., & Sella, A. (1998). The effects of time pressure and completeness of information on decision making. *Journal of Management Information Systems*, *15*(2), 153-172.

Auh, S., & Menguc, B. (2007). Performance implications of the direct and moderating effects of centralization and formalization on customer orientation. *Industrial Marketing Management*, *36*, 1022-1034.

Ayers, D., Dahlstrom, R., & Skinner, S. J. (1997). An exploratory investigation of organizational antecedents to new product success. *Journal of Marketing Research*, *14*, 396-402.

Bass, B. M. (1960). *Leadership, psychology, and organizational behavior*. New York: Harper.

Bass, B. M. (2008). *Bass' handbook of leadership: Theory, research and managerial applications*. New York: Free Press.

Ben-Zur, H., & Breznitz, S. I. (1981). The effect of time pressure on risky choice behavior. *Acta Psychologica*, 7, 89-104.

Bradbury, H., & Lichtenstein, B. (2000). Relationality in organizational research: Exploring the space between. *Organization Science, 11*, 551−564.

Carley, K., & Hill, V. (2001). Structural change and learning within organizations. In A. Lomi and E. R. Larsen (Eds.), *Dynamics of organizational societies* (pp. 63−92). Cambridge, MA: AAAI/MIT Press.

Calderwood, B., Klein, G. A., & Crandall, B.W. (1988). Time pressure, skill, and move quality in chess. *American Journal of Psychology*, *101*, 481–493.

Chakravarthy, B. S. (1982). Adaptation: A promising metaphor for strategic management. *Academy of Management Review*, *7*, 35-44.

Church, T. A., Katigbak, M. S., & del Prado, A. M. (2010). Cultural similarities and differences in perceived affordances of situations for Big Five behaviors. *Journal of Research in Personality*, *44*(1), 78-90.

Cooper, W. H., & Withey, M. J. (2009). The strong situation hypothesis. *Personality and Social Psychology Review*, *13*(1), 62-72.

Dooley, K. (1996). A nominal definition of complex adaptive systems. *The Chaos Network*, *8*(1), 2-3.

Dunn, J. C., Lewandowsky, S., & Kirsner, K. (2002). Dynamics of communication in emergency management. *Applied Cognitive Psychology*, *16*, 719-737.

Field, R. H. G., Read, P. C., & Louviere, J. J. (1990). The effect of situation attributes on decision method of choice in the Vroom-Jago model of participation in decision making. *The Leadership Quarterly*, *1*(3), 165-176.

Fredrickson, J. W. (1986). The strategic decision process and the organizational structure. *Academy of Management Review*, *11*(2), 280-297.

Gal, R., & Jones, F. O. (1985). Psychological aspects of combat stress : A model derived from Israeli and other combat experiences. Unpublished manuscript.

Grant, J. M., & Mack, D. A. (2004). Preparing for the battle: Healthy leadership during organizational crisis. *Organizational Dynamics*, *33*(4), 409-425.

Grant, A. M., Campbell, E. M., Chen, G., Cottone, K., Lapedis, D., & Lee, K. (2007). Impact and art of motivation maintenance: The effects of contact with beneficiaries on persistence behavior. *Organizational Behavior & Human Decision Processes*, *103*, 53-67.

Hamblin, R. L. (1958). Leadership and crisis. *Sociometry, 21*, 322-335.

Hannah, S. T., Uhl-Bien, M., Avolio, B. J., & Cavarretta, F. L. (2009). A framework for examining leadership in extreme contexts. *The Leadership Quarterly*, *20*(6), 897-919.

Hartline, M. D., Maxham, J. G., III, & McKee, D. O. (2000). Corridors of influence in the dissemination of customer-oriented strategy to customer contact service employees. *Journal of Marketing*, *64*, 35-50.

Heine, S. J. (2001). Self as a cultural product: An examination of East Asian and North American selves. *Journal of Personality, 69*, 880–906.

Hermann, C. F. (1972). Threat, time, and surprise: A simulation of international crises. In C. F. Hermann (Ed.), *International crises: Insights from behavioral research* (pp.187-211). New York: Free Press.

Hofstede, G., & McCrae, R. R. (2004). Personality and Culture Revisited: Linking Traits and Dimensions of Culture. *Cross-Cultural Research, 38*(1), 52-88.

Hosking, D. M. (1988). Organizing, leadership and skilful process. *Journal of Management Studies*, *25*, 147-166.

House, R. J., Hanges, P. J., Javidian, M., Dorfman, P. W., & Gupta, V. (2004). *Culture, leadership, and organizations: The GLOBE Study of 62 societies.* Thousand Oaks, CA: Sage Publications.

Isenberg, D. J. (1981). Some effects of time pressure on vertical structure and decision-making accuracy in small groups. *Organizational Behavior and Human Performance*, *27*(1), 119-134.

Janis, I. L. (1983). Decision making under stress. In L. Goldberger & S. Breznitz (Eds.), *Handbook of Stress* (pp. 69-87). New York: Free Press.

Janis, I. L., & Mann, L. (1977). *Decision making: A psychological analysis of conflict, choice and commitment*. New York: Free Press.

James, E. H., & Wooten, L. P. (2005). How to display competence in times of crisis. *Organizational Dynamics*, *34*(2), 141-152.

Jaworki, B., & Kohli, A. (1993). Market orientation: Antecedents and consequences. *Journal of Marketing, 52*, 53-70.

Kirca, A. H., Jayachandran, S., & Bearden, W. O. (2005). Market orientation: A meta-analytic review and assessment of its antecedents and impact on performance. *Journal of Marketing, 69*, 24-41.

Kauffman, S. (1993). *The origins of order: Self-organization and selection in evolution*. New York: Oxford University Press.

Kinicki, A. J., & Vecchio, R. P. (1994). Influences on the quality of supervisor-subordinate relationships: The role of time pressure, organizational commitment, and locus of control. *Journal of Organizational Behavior, 15*(1), 75-82.

Kolditz, T. A. (2007). *In extremis leadership: Leading as if your live depended upon it*. Hoboken, NJ: John Wiley & Sons.

Lichtenstein, B. B., Uhl-Bien, M., Marion, R., Seers, A., Orton, J. D., & Schreiber, C. (2006). Complexity leadership theory: An interactive perspective on leading in complex adaptive systems. *E:CO, 8*(4), 2-12.

Marks, M. A., Zaccaro, S. J., & Mathieu, J. E. (2000). Performance implications of leader briefing and team-interaction training for team adaption to novel environments. *Journal of Applied Psychology, 6*, 971-986.

MacIntosh, E. W., & Doherty, A. (2010). The influence of organizational culture on job satisfaction and intention to leave. *Sport Management Review*, *13*, 106-117.

McKean, K. J. (1994). Using multiple risk factors to assess the behavioral, cognitive , and affective effects of learned helplessness. *Journal of Psychology*, *128*, 177-183.

Mintz, A. (1951). Non-adaptive behavior. *Journal of Abnormal and Social Psychology*, *46*, 150-159.

Morling, B., Kitayama, S., & Miyamato, Y. (2002). Cultural practices emphasize influence in the United States and adjustment in Japan. *Personality and Social Psychology Bulletin*, *28*, 311–323.

Nakata, C., & Im, S. (2010). Spurring cross-functional integration for higher new product performance: A group effectiveness perspective. *Journal of Product Innovation Management*, *27*, 554-571.

Osborn, R., Hunt, J. G., & Jauch, L. R. (2002). Toward a contextual theory of leadership. *The Leadership Quarterly*, *13*(6), 797−837.

Quarantelli, E. L. (1988). Disaster crisis management: A summary of research findings. *Journal of Management Studies*, *25*, 373-385.

Raub, R. (2008). Does bureaucracy kill individual initiative? The impact of structure on organizational citizenship behavior in the hospitality industry. *International Journal of Hospitality Management*, *27*, 179-186.

Reis, H. T. (2008). Reinvigorating the concept of situation in social psychology. *Personality and Social Psychology Review, 12,* 311–329.

Seiler, S. (2007). Determining factors of intercultural leadership: A theoretical framework. In C. M. Coops & T. Szvircsev Tresch (Eds.), *Cultural challenges in military operations* (pp. 217-232). Rome: NATO Defence College.

Seiler, S., & Pfister, A. C. (2009). Why did I do this? Understanding leadership behavior based on the dynamic five-factor model of leadership. *Journal of Leadership Studies*, *3*, 41-52.

Shamir, B., & Howell, J. M. (1999). Organizational and contextual influences on the emergence and effectiveness of charismatic leadership. *The Leadership Quarterly*, *10*(4), 1584-1596.

Sherman, D. J., & Smith, H. L. (1984). The influence of organizational structure of intrinsic versus extrinsic motivation. *Academy of Management Journal*, *24*(4), 877-885.

Sorokin, P. A. (1943). *Man and society in calamity*. New York: Dutton.

Tosi, H. L. (1991). The organization as a context for leadership theory: A multilevel approach. *The Leadership Quarterly*, *2*(3), 205-228.

Turner, B. A. (1976). The organizational and interorganizational development of disasters. *Administrative Science Quarterly, 2*, 205-228.

Uhl-Bien, M., Marion, R., & McKelvey, B (2007). Complexity Leadership Theory: Shifting leadership from industrial age to the knowledge era. *The Leadership Quarterly*, *18*(4), 298-318.

Appendix

The Leadership Situation:

You are the leader of a marketing team consisting of 6 employees. It is Friday noon and your employees are looking forward to the weekend. Due to a short-term decision of the management, you have to work out a new concept by the middle of next week for an information desk at the largest student fair that takes place the week after. However, you and your colleagues will be at another fair abroad at the beginning of next week. Your superior expects a decision by mid-afternoon on how you will tackle this assignment.

How strong is the effect of the following factors on your behavior?

	not at all	**some**	**medium**	**strong**	**very strong**
Individual competence (Experience, expertise, communication skills, problem solving abilities, etc.)	①	②	③	④	⑤
The group (Group opinion, experience of group members, group composition, cohesion, etc.)	①	②	③	④	⑤
The organization (Infrastructure, conditions, defined processes, incentives, etc.)	①	②	③	④	⑤
The general context (Applicable laws, environmental conditions, historical events, cultural norms & rules, etc.)	①	②	③	④	⑤
The immediate situation (Risk of failure and damage, familiarity of situation, decision pressure, uncertainties, etc.)	①	②	③	④	⑤

How high do you assess the following aspects in this situation?

	not at all	**some**	**medium**	**strong**	**very strong**
Time-Pressure (e.g. deadlines, quick reaction, etc.)	①	②	③	④	⑤
Danger (e.g. for organization, you, others, etc.)	①	②	③	④	⑤
Formalization (e.g. rules, procedures, regulations, laws, etc.)	①	②	③	④	⑤

The Leadership Situation:
You are the head of a traffic coordination centre of a large city. For many years now, you have led an experienced team of 6 employees. Each of your employees is responsible for a particular area of the traffic system. On your screen, you observe that a tanker truck has had an accident in the main access tunnel and starts burning. Your course of action is clearly defined by crisis management plans. The whole procedure is written down in an emergency procedure that includes check-lists and is rehearsed from time to time. You know that the tunnel has to be closed off immediately, so that no other vehicles enter the burning tunnel. The fire department, paramedics and police have to be contacted immediately. Therefore, you have to change the number of open lanes into the tunnel with the traffic management system, so that the whole traffic only uses one lane and the other lane will be free for the emergency vehicles. The entire rush-hour traffic that has just started must be redirected by different routes. Furthermore, radio and TV stations need to be notified as fast as possible, so that the population can react to this situation. The public transport companies have to be informed as well so that they can adapt to the changed traffic situation.

How strong is the effect of the following factors on your behavior?

	not at all	**some**	**medium**	**strong**	**very strong**
Individual competence (Experience, expertise, communication skills, problem solving abilities, etc.)	①	②	③	④	⑤
The group (Group opinion, experience of group members, group composition, cohesion, etc.)	①	②	③	④	⑤
The organization (Infrastructure, conditions, defined processes, incentives, etc.)	①	②	③	④	⑤
The general context (Applicable laws, environmental conditions, historical events, cultural norms & rules, etc.)	①	②	③	④	⑤
The immediate situation (Risk of failure and damage, familiarity of situation, decision pressure, uncertainties, etc.)	①	②	③	④	⑤

How high do you assess the following aspects in this situation?

	not at all	**some**	**medium**	**strong**	**very strong**
Time-Pressure (e.g. deadlines, quick reaction, etc.)	①	②	③	④	⑤
Danger (e.g. for organization, you, others, etc.)	①	②	③	④	⑤
Formalization (e.g. rules, procedures, regulations, laws, etc.)	①	②	③	④	⑤

Table 1

Means, Standard Deviations,and Intercorrelations Among the Five Factors and the Three Variables of Study 1

	MEAN	SD	1.	2.	3.	4.	5.	6.	7.
1. IC	3.99	0.94	-						
2. G	3.54	1.21	.03	-					
3. O	3.38	1.15	.02	.13**	-				
4. C	3.31	1.27	.04*	.00	.10**	-			
5. IS	3.94	0.96	.20**	.06*	.02	.10**	-		
6. TP	4.11	1.00	.25**	.13**	.08**	.00	.31**	-	
7. D	3.71	1.20	.19**	.13**	.11**	.19**	.41**	.38**	-
8. F	3.12	1.23	.10**	-.04	.32**	.21**	.04	-.01	.06**

Note. IC = Individual Competence, G = Group, O = Organization, C = Context, IS = Situation, TP = Time Pressure, D = Danger, F = Formalization. $p<.05$ (*), $p<.01$ (**).

Table 2

Relationship between Time Pressure, Danger, Formalization and the Five Factors in Study 1

Factor	Regressor	*B*	*SE B*	β	*F(3)*	*Adj.* R^2
IC	TP	.194	0.20	.208***	70.306***	.078
	D	.082	.016	.105***		
	F	.068	.015	.090***		
G	TP	.107	.026	.089***	20.983***	.024
	D	.097	.022	.096***		
	F	-.044	.020	-.045*		
O	TP	.069	.024	.060**	100.504***	.109
	D	.056	.020	.059**		
	F	.293	.018	.314***		
C	TP	-.104	.026	-.083***	73.601***	.082
	D	.226	.022	.215***		
	F	.199	.020	.194***		
IS	TP	.174	.019	.193***	193.071***	.191
	D	.256	.016	.333***		
	F	.014	.014	.018		

Note. IC = Individual Competence, G = Group, O = Organization, C = Context, IS = Situation, TP = Time Pressure, D = Danger, F = Formalization. $p<.05$ (*), $p<.01$ (**), $p<.001$ (***).

Table 3

Means, Standard Deviations,and Intercorrelations Among the Five Factors and the Three Variables of Study 2

	MEAN	SD	1.	2.	3.	4.	5.	6.	7.
1. IC	3.93	0.95	-						
2. G	3.65	1.12	.14**	-					
3. O	3.50	1.19	-.01	.10**	-				
4. C	3.28	1.23	.02	.00	.13**	-			
5. IS	3.84	1.00	.32**	.11**	.04*	.16**	-		
6. TP	3.81	1.14	.23**	.11**	.05**	.02	.33**	-	-
7. D	3.62	1.21	.22**	.12**	.10**	.24**	.49**	.32**	
8. F	3.12	1.25	.00	.03	.43**	.26**	-.01	.02	.08**

Note. IC = Individual Competence, G = Group, O = Organization, C = Context, IS = Situation, TP = Time Pressure, D = Danger, F = Formalization. $p<.05$ (*), $p<.01$ (**).

Table 4

Relationship between Time Pressure, Danger, Formalization and the Five Factors in Study 2

Factor	Regressor	*B*	*SE B*	β	*F(3)*	*Adj.* R^2
IC	TP	.149	.017	.178***	68.264***	.075
	D	130	.016	.164***		
	F	-.017	.015	-.022		
G	TP	.080	.021	.082***	18.104***	.020
	D	.088	.019	.096***		
	F	.016	.018	.018		
O	TP	.024	.020	.023	201.933***	.196
	D	.060	.019	.061**		
	F	.412	.017	.433***		
C	TP	-.069	.021	-.064**	113.441***	.120
	D	.246	.020	.244***		
	F	.239	.019	.242***		
IS	TP	.171	.016	.196***	306.594***	.271
	D	.350	.015	.427***		
	F	-.035	.014	-.044*		

Note. IC = Individual Competence, G = Group, O = Organization, C = Context, IS = Situation, TP = Time Pressure, D = Danger, F = Formalization. $p<.05$ (*), $p<.01$ (**), $p<.001$ (***).

Table 5

Content Changes in Each Situation for Each Factor Between Study 1 and Study 5

	Factors							Factors					
Situation	IC	G	O	C	S	Content change	Situation	IC	G	O	C	S	Content change
1	n.s.	n.s.	n.s.	n.s.	n.s.	no	13	n.s.	n.s.	n.s.	n.s.	*	no
2	***	***	**	n.s.	**	yes	14	n.s.	n.s.	*	n.s.	*	yes
3	n.s.	n.s.	n.s.	n.s.	n.s.	no	15	n.s.	**	n.s.	n.s.	*	yes
4	*	n.s.	n.s.	*	n.s.	no	16	n.s.	n.s.	n.s.	n.s.	*	no
5	n.s.	n.s.	n.s.	n.s.	n.s.	yes	17	**	*	n.s.	n.s.	n.s.	no
6	n.s.	n.s.	n.s.	n.s.	n.s.	no	18	n.s.	***	**	**	n.s.	yes
7	n.s.	n.s.	n.s.	n.s.	**	yes	19	n.s.	*	n.s.	n.s.	n.s.	no
8	*	n.s.	n.s.	n.s.	n.s.	no	20	n.s.	n.s.	n.s.	n.s.	n.s.	no
9	n.s.	*	n.s.	n.s.	*	yes	21	n.s.	n.s.	n.s.	n.s.	n.s.	no
10	n.s.	***	***	**	*	yes	22	**	n.s.	***	n.s.	n.s.	yes
11	n.s.	**	*	***	***	yes	23	n.s.	n.s.	n.s.	n.s.	n.s.	no
12	n.s.	n.s.	n.s.	n.s.	n.s.	no	24	n.s.	n.s.	***	***	***	yes

Note: n.s.=not significant, *p<.05, **p<.01, ***p<.001

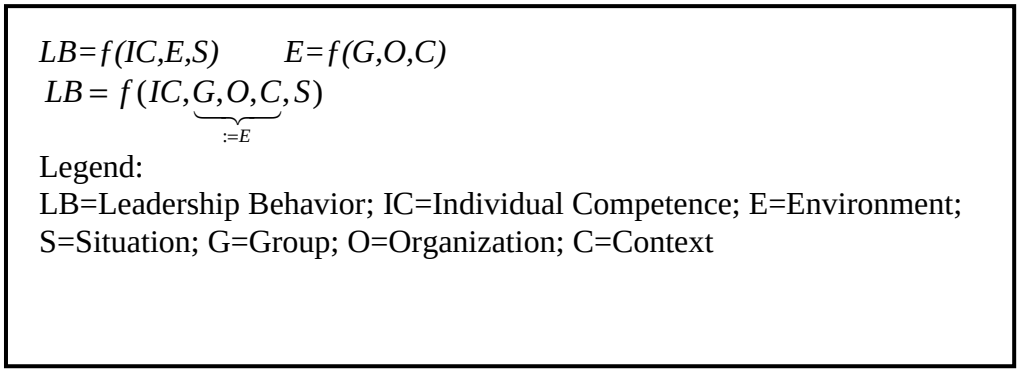

Figure 1: Factors influencing leadership behavior.

4

Predicting Decision Behavior:

Understanding the Interaction of Scenario Structure and Scenario Interpretation

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Abstract

This study examined the interaction between scenario structure, scenario interpretation, and decision behavior. The scenario structure was manipulated and measured by the three variables time pressure, danger, and formalization in nine leadership scenarios. The scenario interpretation was measured through the perceived impact of five factors from the 'Dynamic Five-Factor Model of Leadership' (Seiler & Pfister, 2009). The factors are (1) individual competence, (2) group, (3) organization, (4) context, and (5) immediate situation. The decision behavior was measured by rating the adequacy of four decision behaviors: own decision, consultation, joint decision, and delegation in each scenario. Data was collected in an online study from Swiss university students (N=109). The results demonstrated that the structure systematically influenced the interpretation. Further, both structure and interpretation systematically influenced decision behavior, whereby the scenario interpretation mediated several effects of the scenario structure on decision behavior. Results further showed that the interpretation of a scenario was a better predictor for decision behavior than the scenario's structure.

Keywords: leadership, decision behavior, scenario structure, scenario interpretation

Introduction

Making decisions is one of the principal tasks of leaders (Yukl, 2001). But a leader has the option of letting others participate in the decision making process to various degrees. The decision can either be made alone, after consulting others, together with others, or even completely delegated. Yukl describes this as using different decision behaviors to reach a decision. Several variables were found which influence the choice of a decision behavior. For example, time pressure or possessing the crucial information increases the tendency to decide alone. If important information is held by the followers the tendency to decide in a group or to delegate the decision increases (Field, Read, & Louviere, 1990; Heller & Yukl, 1969; Vroom & Jago, 1988; Vroom & Yetton, 1973; Yukl, 2010; Yukl & Fu, 1999). Andersen (2006) sees the process behind managerial decision-making as being a function of the person and environmental or situational influences. Similarly, Hughes, Ginnett, and Curphy (2006) subsume several influencing variables on decision behavior under the three superior influencing factors (a) the leader, (b) the followers, and (c) the situation. Although the effects of several single variables on decision behavior are known, a lack of research exists regarding the influence of such superior factors, as described by Andersen as well as Hughes et al., on decision behavior. Therefore, there is also a lack of research regarding the processes whereby situational variables affect decision behavior. Do leaders choose a decision behavior based only on specific situational variables? Or do they chose on the basis of a broader interpretation of the scenario, reflecting the perceived influence of several superior factors?

As there is no agreed taxonomy for situations (Church, Katigbak, & Del Prado, 2010, Hogan, Harkenss, & Lubinski, 2000) it remains unclear which superior factors should be used for measurement. In their 'Dynamic Five-Factor Model of Leadership' Seiler and Pfister (2009) introduce five superior factors which dynamically influence leadership behavior. The factors are (1) the individual competence of the leader, (2) the group one is working with, (3) the organization in which one is working, (4) the context in which they are located, and (5) the immediate situation with which they are confronted. These five factors largely overlap with the ones stated by Andersen (2006) and Hughes et al. (2006) but divide the environmental influences into the three factors group, organization, and context. Many of the known variables can be seen as aspects of one of these five factors (Seiler & Pfister, 2009). For example: prior knowledge, possession of the critical information, or a high problem-solving capability are parts of the factor 'individual competence' of the leader. Group cultures, group-members skills, or group composition are parts of the factor 'group'. In order to avoid confounding the use of the term *situation*, this term will only be used when referring to the factor of the 'Dynamic Five-Factor Model of Leadership'. In all other cases the term *scenario* will be used instead.

In two studies Seiler, Pfister, and Ooi (2010) showed that the perceived importance of these five factors was systematically influenced by scenario variables such as time pressure, danger, and formalization. We argue that the importance of a factor is a result of an interpretation process bringing together the influence of several different variables. We further argue that the 'structure' of a scenario, which is defined by different scenario variables, influences decision

behavior by changing the perceived importance of these five factors, and therefore by changing the interpretation of a scenario. This constitutes an additional influence process to the direct effect of the structure variables on decision behavior (see Figure 1).

[Insert Figure 1 here]

The goal of the present study is to analyze the interaction between the structure of a scenario, manipulated and measured with the three variables time pressure, danger, and formalization, its interpretation, measured with the five factors from the 'Dynamic Five-Factor Model of Leadership', and the four decision behaviors proposed by Yukl (2010). A main focus lies on how interpretation influences the relationship between structure and decision behavior. Due to the close relation between structure and interpretation, already shown by Seiler et al. (2010), we suggest a mediation model in which interpretation mediates the effect of structure on decision behavior. A second focus lies on determining whether it is structure or interpretation that is most important for decision behavior.

This study contributes to leadership research in several ways. First, the study offers a deeper understanding of which processes specific variables, i.e. the structure of a scenario, influence decision behavior. Further, it offers insights into how important a single variable and the interpretation of a scenario are for decision behavior. Moreover, a new method to measure the interpretation of a scenario is used. Showing the predictive quality of this approach for decision behavior makes this method an important addition to the tools used to analyze the influence of scenarios on leadership behavior.

Decision Behavior and Scenario Structure

Several taxonomies for decision behavior exist (Heller & Yukl, 1969; Tannenbaum & Schmidt, 1958; Vroom, 2000; Vroom & Yetton, 1973). Yukl (2010) incorporated these different taxonomies into four distinct decision behaviors. These are (1) the own decision, (2) consultation, (3) joint decision, and (4) delegation. These decision behaviors differ in the amount of participation by others in the decision process. The amount of participation increases from no participation (1) to full participation (4). Many variables in a scenario were found that influence the choice of a decision behavior such as time pressure, required decision quality, the distribution of important information, or the importance of the acceptance of the decision (Field et al., 1990; Vroom & Jago, 1988, 2008; Vroom & Yetton, 1973; Yukl & Fu, 1999). These variables can be perceived within a scenario. Most of them are measurable, such as the remaining time to finish a task, the source of important information, the number and quality of arguments for a decision, or the desired acceptance rate. Together, these variables define the 'structure' of a scenario (Seiler et al., 2010). A scenario can be very dangerous, for example, with a high time pressure and a high degree of formalization, such as an incident in a nuclear reactor which leads to a closure of the reactor, following clearly defined processes.

Time pressure, danger, and formalization were used to manipulate the structure of the scenario in the studies by Seiler et al. (2010). Time pressure increases the tendency to decide alone and decreases the tendency to decide together with others or to delegate (Bass, 1960; Field et al., 1990; Hermann, 1972; Isenberg, 1981; Vroom & Jago, 1988, Vroom & Yetton, 1973). Danger has a

similar effect. Danger leads to an increased use of own decision behavior (Mulder, de Jong, Koppelaar, & Verhage, 1986). Many rules and regulations or clear procedures lead to increased formalization (Jaworki & Kohli, 1993; Tosi, 1991). Such formalization has a twofold effect on behavior (Auh & Menguc, 2007; Raub, 2008). A high degree of formalization can make it easier to decide alone, as the process of how to decide is clearly defined. On the other hand, formalization can increase the tendency to delegate, as rules and processes can be executed by someone other than the leader. If the rules are followed, decision quality should be the same. Hence, the structure variables time pressure, danger, and formalization systematically affect decision behavior.

Hypothesis 1: The three 'structure' variables are significant predictors for the adequacy rating and the choice of a decision behavior.

Scenario Interpretation

The goal of an interpretation is to generate a sense, explain, and understand an event (Bullon, 2010). Within this interpretation information is aggregated and processed further. Depending on what information is perceived in a scenario, different mental constructs are activated (Kunda, 2000). For example, information on own individual capabilities or those of other group members activate the constructs 'individual competence' and 'group'. Through this activation of constructs additional information becomes accessible such as knowledge on causal relationships between constructs (Carey, 1985; Keil, 1989; Murphy & Medin, 1985), for example, which own competence works best for influencing group opinion. Also depending on the scenario and the information that comes to mind different attitudes are activated (Bohner & Wänke, 2005). The attitudes are tied to

specific objects such as specific people in the work surrounding, groups, or inanimate things (e.g. the office building) as well as other concrete or abstract things (e.g. the government). These attitudes indicate, for example, whether past help from the individual group members was beneficial in the decision making process. At the same time the process of reasoning generates relationships between the different activated concepts generating a logic and making sense of the scenario (Johnson-Laird, 2006; Manktelow, 1999). For example, a leader sees his competence as being very important because he holds the crucial information for making a decision and has substantial experience with making decisions in similar scenarios. At the same time, the leader realizes that some group members have further important information. These members were helpful in the past decision making processes and their help led to good decisions. The leader reasons that better decisions are made if attention is paid to all relevant information at hand. Therefore, this general interpretation leads him to perceive the own competence and the group as being the two most important factors in this scenario. Deciding completely alone would therefore not be the optimal way, as important information possessed by the group would be ignored and decision quality would be inferior to a group decision.

One confronts a central problem in measuring the interpretation of a scenario. There is no consencsus as to which factors should be used for measuring the interpretation (Church et al., 2010; Hogan et al., 2000). Consequently, previous research on decision behavior focused on the personal selection of easily measurable structural variables, which were important for the theory that should be tested. Seiler and Pfister (2009) introduced five factors in their ‘Dynamic Five-

Factor Model of Leadership' which can be used to measure the interpretation of different situations (Seiler et al., 2010). Like Andersen (2006), they postulated that leadership behavior is influenced by the leader's individual competences, the environment he or she is working in, and the immediate situation he or she is confronted with. The environmental aspects are further divided into three factors, which are the group of people leaders are working together with, the organization they are working in, and the general context they are embedded into. Based on this model, leadership behavior is a function of the leader's individual competence, the group, the organization, the context, and the immediate situation, whereby these factors are seen as interrelated, yet clearly distinguishable from one another.

The factor 'individual competence' refers to a leader's capabilities, knowledge, and expertise; the factor 'group' refers to all individuals in the working environment with whom the leader interacts with; the factor 'organization' refers to aspects such as organizational strategy, structure, processes, culture, and climate; the factor 'context' refers to the general (relatively stable) environment in which an organization inserted, from a historical and current perspective; the factor 'situation' refers to immediate (fast changing) situational circumstances a leader is confronted with. The perceived impact of these five factors and the structure of a situation are closely related. Seiler et al. (2010) showed in two studies that the three structure variables time pressure, danger, and formalization systematically influence the perceived impact of the five factors. For example, increasing time pressure led people to perceive the factors individual competence and immediate situation as being more important for their leadership behavior. Increasing formalization led people to perceive the factors organization and context as being

more important. We therefore hypothesize that a scenario's structure systematically influences its interpretation.

Hypothesis 2: The three structure variables are significant predictors for the perceived importance of the five factors.

Five Factors and Decision Behavior

Although the impact of the five factors of the 'Dynamic Five-Factor Model of Leadership' on decision behavior has not been measured directly to date, several findings exist that support their influence on decision behavior. If the factor 'individual competence' is seen as important, for example through possessing the important or sufficient information (Field et al., 1990; Yukl, 2010), having important prior experience (Ahituv, Igbara, & Sella, 1998), or having a high need for achievement (Miller & Toulouse, 1986), leaders tend to make an autocratic decision, i.e. decide alone. If individual competence is seen as less important leaders tend to make participative decisions.

If the factor 'group' is seen as important, leaders tend to use consultation, joint decision, or delegation behavior (Vroom & Jago, 1988; Vroom & Yetton, 1973; Yukl 2010, Yukl & Fu, 1999). For example, if the group possesses the important information or if group members possess important skills, if group acceptance of the decision is important, or if development of the group members is important, then leaders tend to use participative decision behaviors such as delegation. Several findings from the empowerment literature underline this relationship (Argyris, 1998; Bowen & Lawler, 1992; Conger, 1989; Forrester, 2000; Howard, 1998; Randolph, 1995; Spreitzer, 1996). For example, if strong task commitment and great initiative is needed, if high innovation is crucial, or if strong

organizational commitment is relevant the factor ‘group’ becomes increasingly important. Leaders should then apply participative decision-making strategies or even delegate the decision-making process.

The factor ‘organization’ can have a twofold effect on decision behavior. Eddleston, Otondo, and Kellermanns (2008) analyzed the impact of different structures of ownership in family enterprises. The impact of the organizational structure can either favor own decision or participative decision-making. Heller and Yukl (1969) showed that first and second line managers tend to use own decision behavior due to the organization’s high influence via goals, rules, regulations, and processes. Kearney and Hays (1994) describe other organizational processes, such as total quality management, that favor participative decision making.

As the factor ‘context’ incorporates many different complex parts such as history (Hartman, 1970; Kostova, 1993), culture (Sagie & Aycan, 2003), and laws and regulations (Karney & Hays, 1994), the increased influence of this factor is often accompanied by an increasing complexity of the leadership scenario in which a decision has to be made. Baron and Greenberg (1990) have shown that if confronted with highly complex problems, groups deliver solutions which are superior to individual solutions. Heller and Yukl (1969) showed that, compared to lower-level managers, senior managers, often confronted with complex problems they have to solve, use participative decision making more often to cope with the complex environment.

A high impact of the factor ‘immediate situation’, for example through high situational pressure for action, favors intuitive reactions and trained behaviors

(Calderwood, Klein, & Crandall, 1988). In important situations decision-making becomes more centralized (Bass, 2008; Herman, 1972) and at the same time leaders make decisions more autonomous (Kinicki & Vecchio, 1994). Field et al. (1990) showed that the high importance of an immediate situation, for example a situation that requires a high quality decision, is an indicator for choosing an own decision behavior. We therefore hypothesize that the interpretation of a scenario, e.g. the perceived impact of the five factors, systematically influences the decision behavior.

Hypothesis 3: The five factors are significant predictors for decision behavior.

Mediation

The studies by Seiler et al. (2010) showed that the three structure variables time pressure, danger, and formalization systematically influenced the interpretation of the five factors in different scenarios. Hence, changes in the structure of a scenario lead to changes in the interpretation. As both structure and interpretation can influence decision behavior, we hypothesize that the effect of the structure on decision behavior is partially mediated by the interpretation of the scenario.

Hypothesis 4: The five factors mediate the relationship between the structure variables and the decision behaviors.

Regarding the predictive power of the structure and the interpretation of a scenario on decision behavior, we assume that the interpretation of a scenario is more important. The effects of different aspects of a scenario found in previous studies may result from a broader interpretation of the superior factors stated by Hughes et al. (2004). Additionally, as stated by Seiler and Pfister (2009) each of the five factors itself consists of several components. They can be measured

independently but together generate the perceived importance of a factor as shown by Seiler et al. (2010). Each factor incorporates further sources of influence in addition to the effect of a single aspect, which is directly measured. Hence, as the factors represent this wider range of influencing sources, they can have a potentially greater impact on the decision behavior. We therefore hypothesize that the interpretation of a scenario has a greater influence on decision behavior than its structure.

Hypothesis 5: The five factors explain more variance in the adequacy ratings and choice of a decision behavior than the three structure variables.

Method

Participants and Procedure

A total of 109 participants between 24 and 38 years of age from the Swiss Federal Institute of Technology (n = 37), University of Zurich (n = 64) and the University of Basel (n = 8) were recruited. Of these participants, 58 (53.2%) were male and 51 (46.8%) female (M_{age} = 29.07, SD = 3.0). Fourty nine (45.0%) had leadership experience with a headcount ranging from 1 to 180 employees. Of the participants, 62 (56.9%) had a high school, 37 (33.9%) a bachelor, and 10 (9.2%) a masters degree.

The data was collected using an online software provided by www.unipark.de in autumn 2009 as a part of a larger online study analyzing the effects of culture, personality, and situation on decision behavior. Participants accessed the survey by clicking on a link in an invitation e-mail from the researchers. The first pages explained the purpose of the study to the participants. Participation was strictly

voluntary, and all responses were kept confidential. Participants were also informed that they could refuse or discontinue participation at any time. The sequence of the nine scenarios that had to be evaluated was randomized. The entire study was conducted in English. The difficulty of the entire study was rated as easy to medium ($M_{\text{difficulty}}$ = 2.24, *SD* = .72) on a scale from 1(*very easy*) to 5 (*very difficult*).

Leadership Scenarios

Nine different leadership scenarios were presented, of which each had a distinct combination of the three structure variables time pressure, danger, and formalizatoni. All nine scenarios were pretested in studies by Seiler et al. (2010). They were translated from German into English by translators and checked for content similarity by other translators. In every leadership scenario participants had to take the role of the leader. Information on the five factors (individual competence, group, organization, general context, and immediate situation) was given in the description. The spectrum encompassed fields such as fire-fighter missions, daily managerial tasks, as well as crises in enterprises. To systematically modify the structure of each scenario, the described amount of time pressure, danger, and formalization varied being either high or low similar to the studies of Seiler et al. (2010).

Instruments

Participants had to rate four different aspects for each of the nine scenarios. First, the influence of the five factors on leadership behavior had to be rated. The question was: "Regarding the situation presented above, how strongly is your behavior influenced by the subsequent factors?" Each of the five factors had to be

rated using a five-point scale ranging from 1 (*not at all*) to 5 (*very strong*). Second, the strength of the three aspects time pressure, danger and formalization had to be rated for each scenario with a similar five-point scale. The rating was preceded by the question "How strong do you estimate the following aspects of the situation?" Third, as a decision behavior measurement, the adequacy of each decision behavior had to be rated separately using a five-point scale ranging from 1 (*very inadequate*) to 5 (*very adequate*). The question for the adequacy rating was: “Regarding the situation mentioned above, how adequate do you think are the following ways to decide what to do?” Finally, as behavioral intention measurement, out of the four decision behaviors, one had to be selected as the decision behavior the participant would choose in this specific situation. The question was: “Which way of deciding would you choose in this situation?”

Attached at the end of the study was a demographic questionnaire. Participants had to indicate age, sex, and level of education. Additionally, leadership experience had to be indicated with a yes/no question and, if rated yes, the number of years as well as the highest headcount had to be given. Finally, the difficulty of the whole study had to be rated on a five-point scale ranging from 1 (*very easy*) to 5 (*very difficult*).

Data Analysis

In two previous studies, Seiler et al. (2010) showed that the nine scenarios were evaluated independently from each other. We therefore regarded each evaluation of a variable and factor as a single, unrelated measurement and not as a repeated one. This lead to a total of 981 measurements for each variable and factor. As the two decision behaviors ‘own decision’ and ‘consultation’ can both be seen as autocratic

decision behaviors, a mean adequacy rating for ‘autocratic decision behavior’ was calculated. Similarly, a mean adequacy rating for ‘participative decision behavior’ behavior was calculated using the two decision behaviors ‘joint decision’ and ‘delegation’. To analyze the relationships between the different measured variables inter-correlations using Pearson’s r two-tailed test were used. Multiple linear regression with the inclusion method and OLS statistic was used to analyze the relationships between the three structure variables and the perceived influence of five factors. To analyze whether the three structural variables as well as the five factors predict a decision behavior’s adequacy rating, multiple linear regressions using the inclusion method with the OLS statistic were used. To analyze the effects of the three aspects and the five factors on the choice of a decision behavior, multiple logistic regressions were employed using the dummy-coded choice for each decision behavior as dependent variable. Multiple mediation effects were analyzed using the multiple mediation approach by Preacher and Hayes (2008). The method of Paternoster, Brame, Mazerolle, and Piquero (1998) was used to determine whether the mediation significantly reduced the direct effect of the structure variables on decision behavior. One limitation of this multiple mediation analysis must be mentioned. The multiple mediations were analyzed only for the effects of each single independent variable on one dependent variable. Hence, the influence of several independent variables (similar to the multiple regression) which were mediated could not be analyzed simultaneously. Therefore, the results of the multiple mediation analysis may diverge from the results of the multiple linear regression or multiple logistic regression.

Results

[Insert Table 1 here]

Table 1 shows the descriptive statistics and the intercorrelations among the measured variables. ‘Consultation’ was rated as the most adequate and ‘delegation’ as the least adequate behavior. Similarly, ‘consultation’ was the most chosen and ‘delegation’ the least chosen decision behavior. Additionally, the three variables ‘time pressure’, ‘danger’, and ‘formalization’ correlated systematically with the perceived impact of the factors ‘individual competence’, ‘organization’, ‘context’, and ‘immediate situation’. The perceived impact of the factor ‘group’ was not affected by these three structure variables.

Table 2 shows the results of multiple linear regressions for the three structure variables predicting the perceived impact of five factors. Comparable results to the studies by Seiler et al. (2010) were obtained, whereby the three structure variables systematically influenced the perceived impact of the factors except for the factor ‘group’. Hence, Hypothesis 1 was supported.

[Insert Table 2 here]

Adequacy of Decision Behaviors

Table 3 shows the results of the multiple linear regressions using the three aspects to predict the adequacy rating for each decision behavior. For the interpretation we included variables with $\beta>.1$ as predictors because we considered the predictive power of $\beta<.1$ as not relevant. The results showed that ‘formalization’ does not predict the adequacy rating of any decision behavior, ‘time pressure’ and ‘danger’ are positive predictors for ‘own decision’ and ‘danger’ is a negative predictor for ‘joint decision’ as well as ‘delegation’. Further,

‘danger’ is a positive predictor for ‘autocratic decision behavior’ and a negative predictor for ‘participative decision behavior’. These findings supported Hypothesis 2, as the structure of a scenario systematically influenced the adequacy ratings of the decision behaviors.

[Insert Table 3 here]

Table 4 shows the results of the multiple linear regressions with the five factors as predictors for decision behaviors. Results supported Hypothesis 3, which suggested a systematic influence of the five factors on decision behavior. The five factors were systematic predictors for the adequacy ratings of the decision behaviors ‘own decision’, ‘joint decision’, and ‘delegation’. Only for ‘consultation’ did the five factors not have predictive character. The factor ‘individual competence’ was a positive predictor for ‘own decision’ and a negative predictor for ‘delegation’. The factor ‘group’ was a negative predictor for ‘own decision’ and a positive predictor for ‘joint decision’ and ‘delegation’. The factor ‘organization’ was a positive predictor for ‘own decision’ as well as ‘delegation’. The factor ‘context’ was a negative predictor of ‘own decision’. The factor ‘immediate situation’ was a positive predictor for ‘own decision’, and a negative predictor for ‘joint decision’ and ‘delegation’. Further, the factors ‘individual competence’ and ‘immediate situation’ were positive and the factor ‘group’ a negative predictor for ‘autocratic decision behavior’. Opposite relationships were found for ‘participative decision behavior’.

Multiple mediation analysis showed that the influence of ‘time pressure’ on the adequacy rating of ‘own decision’ is partially mediated (β=.19, p<.001; β’=.08, p<.05) by the five factors. The influence of ‘danger’ on the adequacy rating of

'own decision' is partially (β=.30, p<.001; β'=.22, p<.001) and on the rating of 'consultation' fully mediated (β=.06, p<.05; β'=.01, p<n.s.) by the five factors. Although the five factors reduce the direct effects of 'time pressure' on joint decision and the effects of 'danger' on 'joint decision' and 'delegation', the effects were not significant.

[Insert Table 4 here]

Choice of Decision Behavior

Table 5 shows the results of the multiple logistic regression for the three structure variables as predictors for the choice of a decision behavior. Similar results were found as for the adequacy ratings. Two main differences existed. First, 'time pressure' was a negative predictor for the choice of 'joint decision'. Second, 'formalization' was a negative predictor for the choice of 'own decision' but did not predict 'delegation'. These results added further support to Hypothesis 2.

[Insert Table 5 here]

Table 6 shows the standardized coefficients of the multiple logistic regressions for the five factors as predictors for the choice of a decision behavior. Just as for the adequacy ratings, the same findings were found for the influence of the five factors on the choice ratings. Three main differences existed. First, the factor 'individual competence' was a negative predictor for the use of 'joint decision'. Second, the previously observed effect of 'organization' on 'delegation' was not found for the choice of 'delegation'. Finally, the factor 'context' was a positive predictor for the use of 'joint decision'. Hence, findings added further support to Hypothesis 3. As with the results of the adequacy rating, the variance in decision

behavior was mostly explained by the five factors rather than by the structure variables. These results further supported Hypothesis 5.

[Insert Table 6 here]

Multiple mediation analysis showed that the influence of ‘time pressure’ on the choice of ‘joint decision’ is fully mediated (β=-.15, p<.01; β’=-.09, p<n.s.) by the five factors. The influence of ‘danger’ on the choice of ‘delegation’ is fully mediated (β=-.32, p<.001; β’=-.16, p<n.s.) by the five factors. Although the five factors reduce the direct effects of ‘time pressure’ on the choice for ‘joint decision’, the effects of ‘danger’ on the choice of ‘own decision’ and ‘joint decision’, and the effect of ‘formalization’ on ‘own decision’, the reductions were not significant. Hypothesis 4 is supported, as several effects of the structure of a scenario on the adequacy and the choice for a decision behavior were mediated by the five factors.

The interpretation of a scenario explained at least twice the variance for each decision behavior than the structure of a scenario. When the structure as well as the interpretation were used to predict decision behavior, the amount of explained variance for the adequacy rating of ‘own decision’ was 24% (*Adj.* R^2=.23), for ‘consultation’ 3% (*Adj.* R^2=.02), for ‘joint decision’ 18% (*Adj.* R^2=.18), and for ‘delegation’ 12% (*Adj.* R^2=.12). The amount of explained variance for the choice of ‘own decision’ was 19%, for ‘consultation’ 2%, for ‘joint decision’ 11%, and for ‘delegation’ 9%. Hence, having both the structure variables and the five factors predicting decision behavior only increased the explained variance by a maximum of 3%. The five factors therefore account for most of the variance that can be explained. Hypothesis 5 was accepted.

Discussion

The purpose of this study was to examine the relationships between the structure of a scenario, the interpretation of the scenario, and decision behavior. Results showed that the interpretation, measured by the perceived impact of the five factors of the 'Dynamic Five-Factor Model of Leadership' individual competence, group, organization, context, and immediate situation, explained most of the variance in the choice and adequacy of each decision behavior. The findings supported our hypothesis that the interpretation of a leadership scenario is the main predictor for decision behavior. Additionally, the five factors were systematic predictors for the decision behaviors. More important, each factor was a predictor for a different set of behaviors. Hence, the choice and adequacy of a decision behavior is based on different individual, interpersonal, organizational, contextual, and situational influences. For example, the factor 'organization' is a predictor for 'delegation' but not for 'joint decision'. For the factor 'context' this relationship is opposite. The results further showed that the structure of a scenario, manipulated and measured by the three variables time pressure, danger, and formalization, systematically influenced adequacy ratings and the choice of the decision behaviors as hypothesized. At the same time, the structure influenced the interpretation of a scenario, which replicated findings from the previous studies by Seiler et al. (2010). Additional analysis revealed that the effects of the structure on the choice and the adequacy rating of a decision behavior were mediated by the interpretation of the scenario, i.e. the perceived impact of the five factors.

The three structure variables and five factors influenced leadership behavior as suggested by the leadership literature. Several previous findings were replicated.

The results of this study supported the importance of the factor ‘group’ for ‘joint decision’ (Field et al., 1990; Vroom & Jago, 1988; Vroom & Yetton, 1973) and ‘delegation’ behavior (Yukl, 2010; Yukl & Fu, 1999), the importance of factor ‘individual competence’ and ‘immediate situation’ for ‘own decision’ (Field et al., 1990; Vroom & Jago, 1988), and the tendency towards 'participative decision-making in complex scenarios (Baron & Greenberg, 1990) could be seen. Further, the importance of the factor ‘organization’ for ‘own decision’ (Heller & Yukl, 1969) and ‘delegation’ (Eddleston, Otondo, & Kellermanns, 2008) and the importance of the factor ‘context’ for ‘own decision’ and ‘joint decision’, could be seen.

Implications

Two main implications result from this study. First, the approach of Seiler and Pfister (2009) was supported, stating that leadership behavior is a function of individual, environmental, and situational aspects. The results emphasize the importance of the interpretation process for leadership behavior. The interpretation of all variables together in a scenario, rather than the clearly perceivable variables (time pressure, danger, formalization), fosters a specific leadership behavior. Hence, research on individual leadership behavior has to take into account the individual process of interpreting a scenario in a holistic manner. A thorough understanding of how this individual interpretation is influenced by external factors, such as culture, or internal factors, such as personality and experience, can offer deeper insights into *why* people behave differently in the same scenario.

Second, the five factors from the ‘Dynamic Five-Factor Model of Leadership’ (Seiler & Pfister, 2009) offer a promising approach to systematically measuring the

effect of a scenario on leadership behavior. Although this study focused only on decision behavior, it underscores the importance of all five factors for leadership behavior in general. The strength of this approach lies in the possibility of comparing the effects of very different scenarios on leadership behavior. Due to the lack of a common taxonomy for measuring the interpretation of a scenario (Church et al., 2010; Hogan et al., 2000), this direct comparison has not yet been possible. The 'Dynamic Five-Factor Model of Leadership' can therefore be used as the strategic approach to measure the impact of scenarios as demanded by Ten Berge and De Raad (2002). The way the five factors influence decision behavior further implies that, aside from the leader, the group, and the immediate situation, additional factors such as the context and the organization play a vital role.

Limitations and Future Research

The main limitation of this study is the lack of predictability in consultation behavior. Hence, the findings of Field et al. (1990) were not replicated, where the group and the individual were important for moving from own decision to consultation behavior. This is a surprising finding, as consultation was the behavior with the highest overall mean in the adequacy rating and the most chosen decision behavior overall. Two different reasons for this finding may exist. First, people may choose a consultation approach instead of an own decision approach because they know of the importance for the followers of showing some participative decision behavior. Therefore, they consult the group members to generate involvement in the decision, although they would prefer to decide alone. On the other hand, people may chose a consultation approach instead of a joint decision approach because they generally prefer a participative decision but are aware that,

as a leader, they should take responsibility. Therefore, they want to retain some form of autocratic decision-making. Hence, the reason *why* people decide to consult others may be important. Consultation can therefore be seen as the only decision behavior that is widely independent of the scenario itself. This view is supported by the results of this study.

The study offers promising directions for future research. Personality and culture are known to influence scenario perception, scenario interpretation, and behavior (Church et al., 2010; Oishi, 2004; Reis, 2008; Reynolds & Karraker, 2008; Ten Berge & De Raad, 2002). Both research areas greatly suffer from a lack of a common taxonomy for measuring the interpretation of scenarios (Church et al., 2010; Hogan et al., 2000). The 'Dynamic Five-Factor Model of Leadership' could be used as such a taxonomy and as a strategic approach to analyze the effects of culture and personality on the interpretation of scenarios in a systematic way. A combination between cultural, personality, and specific measures of the scenario may succeed in explaining variance in decision behavior even more.

Conclusion

The 'Dynamic Five-Factor Model of Leadership' has proven useful to shed new light on how specific variables in a scenario influence decision behavior. Although specific variables like time pressure, danger, and formalization have direct effects on decision behavior, much of their influence is mediated by the five factors. Compared to the specific variables, the five factors should be clearly preferred for predicting decision behavior. As the five factors are a result of an interpretation process, they can be used as a measurement for the interpretation of a scenario.

References

Argyris, C. (1998). Empowerment: The emperor's new clothes. *Harvard Business Review, 76*(3), 98-105.

Ahituv, N., Igbaria, M., & Sella, A. (1998). The effects of time pressure and completeness of information on decision making. *Journal of Management Information Systems, 15*(2), 153-172.

Andersen, J. A. (2006). Leadership, personality and effectiveness. *Journal of Socio-Economics, 35*, 1078-1091.

Auh, S., & Menguc, B. (2007). Performance implications of the direct and moderating effects of centralization and formalization on customer orientation. *Industrial Marketing Management, 36*, 1022-1034.

Baron, R. A., & Greenberg, J. (1990). *Behavior in organizations: Understanding and managing the human side of work* (3rd ed). Boston, MA: Allyn & Bacon.

Bass, B. M. (1960). *Leadership, psychology, and organizational behavior*. New York: Harper.

Bass, B. M. (2008). *Bass' handbook of leadership: Theory, research and managerial applications*. New York: Free Press.

Bohner, G. & Wänke, M. (2005). *Attitudes and attitude change*. New York: Psychology Press.

Bowen, D. E., & Lawler, E. E., III (1992). The empowerment of service workers: What, why, how, and when. *Sloan Management Review*, *33*, 31-39.

Bullon, S. (Ed.). (2010). *Longman dictionary of contemporary English* (5th ed.). New York: Pearson Longman.

Calderwood, B., Klein, G.A., & Crandall, B.W. (1988). Time pressure, skill, and move quality in chess. *American Journal of Psychology*, *101*, 481–493.

Carey. S. (1985). *Conceptual change in childhood*. Cambridge, MA: MIT Press.

Church, T. A., Katigbak, M.S., & Del Prado, A. M. (2010). Cultural similarities and differences in perceived affordances of situations for Big Five behaviors. *Journal of Research in Personality*, *44*(1), 78-90.

Conger, J. A. (1989). *The charismatic leader: Behind the mystique of exceptional leadership*. San Francisco: Jossey-Bass.

Eddleston, K. A., Otondo, R. F., & Kellermanns, F. W. (2008). Conflict, participative decision-making, and generational ownership dispersion: A multilevel analysis. *Journal of Small Business Management*, *46*(3), 456-484.

Fazio, R. H. (1986). How do attitudes guide behavior? In R. M. Sorrentino & E. T. Higgins (Eds.), *The handbook of motivation and cognition: Foundations of social behavior* (pp. 204-243). New York: Guilford Press.

Field, R. H. G., Read, P. C., & Louviere, J. J. (1990). The effect of situation attributes on decision method of choice in the Vroom-Jago model of participation in decision making. *The Leadership Quarterly, 1*(3), 165-176.

Forrester, R. (2000). Empowerment: Rejuvenating a potent idea. *Academy of Management Executive, 14*(3), 67-80.

Hartman, H. (1970). Codetermination in West Germany. *Industrial Relations, 9*, 137-47.

Heller, F. A., & Yukl, G. (1969). Participation, managerial decision-making, and situational variables. *Organizational Behavior and Human Performance, 4*, 277-241.

Hermann, C. F. (1972). Threat, time, and surprise: A simulation of international crises. In C. F. Hermann (Ed.), *International crises: Insights from behavioral research* (pp.187-211). New York: Free Press.

Hogan, R., Harkness, A. R., & Lubinski, D. (2000). Personality and individual differences. In K. Pawlik & M. R. Rosenzweig (Eds.), *International Handbook of Psychology* (pp. 283-304). London: Sage.

Howard, A. (1998). The empowering leader: Unrealized opportunities. In G. R. Hickman (Ed.), *Leading organizations: Perspectives for a new era* (pp. 202-213). Thousand Oaks, CA: Sage Publication.

Hughes, R. L., Ginnett, R. C., & Curphy, G. J. (2006). *Leadership: Enhancing the lessons of experience*. NY: McGraw Hill.

Isenberg, D. J. (1981). Some effects of time-pressure on vertical structure and decision-making accuracy in small groups. *Organizational Behavior and Human Performance*, *27*(1), 119-134.

Jaworki, B., & Kohli, A. (1993). Market orientation: Antecedents and consequences. *Journal of Marketing*, *52*, 53-70.

Johnson-Laird, P.N. (2006). *How we reason*. Oxford: Oxford University Press.

Kearney, R. C., & Hays, S. W. (1994). Labor-management and participative decision making: Toward a new paradigm. *Public Administration Review*, *54*(1), 44-51.

Keil, F. C. (1989). *Concepts, kinds, and cognitive development*. Cambridge, MA: MIT Press.

Kinicki, A. J., & Vecchio, R. P. (1994). Influences on the quality of supervisor-subordinate relationships: The role of time-pressure, organizational commitment, and locus of control. *Journal of Organizational Behavior, 15*(1), 75-82.

Kostova, D. (1993). Worker's participation in Bulgaria: Past and current developments. In W. M. Lafferty & E. Rosenstein (Eds.), *The challenge of new technology and macro-political change* (pp. 205-213). Melbourne: Oxford University Press.

Kunda, Z. (2000). *Social cognition: Making sense of people*. Cambridge, MA: MIT Press.

Manktelow, K. (1999). *Reasoning and thinking*. Hove, UK: Psychology Press.

Miller, D., & Toulouse, J. (1986). Chief executive personality and corporate strategy and structure in small firms. *Management Science, 32*, 1389-1409.

Mulder, M., de Jong, R. D., Koppelaar, L., & Verhage, J. (1986). Power, situation, and leaders‘ effectiveness: An organizational study. *Journal of Applied Psychology, 71*, 566-570.

Murphy, G. L., & Medin, D. L. (1985). The role of theories in conceptual coherence. *Psychological Review, 92*, 289-316.

Oishi, S. (2004). Personality in culture: A neo-Allportian view. Journal of research in *Personality, 38*, 68-74.

Paternoster, R., Brame, R., Mazerolle, P. & Piquero, A. (1998). Using the correct statistical test for the equality of regression coefficients. *Criminology, 36*(4), 859-866.

Petty, R. E., & Cacioppo, J. T. (1986). The elaboration likelihood model of persuasion. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 29, pp. 123-205). New York: Academic Press.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*(3), 879-891.

Randolph, W. A. (1995). Navigating the journey to empowerment. *Organizational Dynamics*, *23*(4), 19-31.

Raub, R. (2008). Does bureaucracy kill individual initiative? The impact of structure on organizational citizenship behavior in the hospitality industry. *International Journal of Hospitality Management*, *27*, 179-186.

Reis, H. T. (2008). Reinvigorating the concept of situation in social psychology. *Personality and Social Psychology Review, 12*, 311–329.

Reynolds, B., & Karraker, K. (2008). A big five model of disposition and situation interaction: Why a "helpful" person may not always behave helpfully. *New Ideas in Psychology, 21*, 1-13.

Sagie, A., & Aycan, Z. (2003). A cross-cultural analysis of participative decision-making in organizations. *Human Relations*, *56*(4), 453-473.

Seiler, S., & Pfister, A. C. (2009). Why did I do this? Understanding leadership behavior based on the dynamic five-factor model of leadership. *Journal of Leadership Studies*, *3*, 41-52.

Seiler, S., Pfister, A. C., & Ooi, Y. P. (2010). *The dynamic five factor model of leadership: An empirical validation of a holistic leadership model*. Unpublished manuscript.

Spreitzer, G. M. (1996). Social structural characteristics of psychological empowerment. *Academy of Management Journal*, *39*, 483-504.

Tannenbaum, R., & Schmidt, W. (1958). How to choose a leadership pattern. *Harvard Business Review*, *36*, 95-101.

Ten Berge, M. A., & De Raad, B. (2002). The structure of situations from a personality perspective. *European Journal of Personality*, *16*, 81-102.

Tosi, H. L. (1991). The organization as a context for leadership theory: A multilevel approach. *The Leadership Quarterly*, *2*(3), 205-228.

Vroom, V. H. (2000). Leadership and the decision-making process. *Organizational Dynamics*, *28*(4), 82-94.

Vroom, V. H., & Jago, A. G. (1988). *The new leadership: Managing participation in organizations*. Englewood Cliffs, NJ: Prentice-Hall.

Vroom, V. H., & Jago, A. G. (2007). The role of the situation in leadership. *American Psychologist*, *62*(1), 17-24.

Vroom, V. H., & Yetton, P. W. (1973). *Leadership and decision making*. Pittsburgh: University Pittsburgh Press.

Yukl, G. (2010). *Leadership in Organizations* (7th ed.). Upper Saddle River, NJ: Prentice-Hall.

Yukl, G., & Fu, P. P. (1999). Determinants of delegation and consultation by managers. *Journal of Organizational Behavior*, *20*(2), 219-232.

Table 1

Means, Standard Deviations, and Intercorrelations Among the Five Factors, Three Variables, the Adequacy Ratings, and the Choice for a Decision Behavior

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. IC	4.08	.93	-																
2. G	3.74	1.19	-.02	-															
3. O	3.60	1.15	-.01	.14**	-														
4. C	3.31	1.26	-.06*	-.04	.05	-													
5. S	3.93	1.05	.18*	-.05	.06	.23**	-												
6. TP	3.94	1.18	.17**	.01	.12**	-.12**	.19**	-											
7. D	3.70	1.27	.21**	-.03	.13**	.18**	.51**	0.06	-										
8. F	3.29	1.23	-.10**	-.06*	.23**	.44**	.10**	-.11**	.10**	-									
9. OD [a]	3.27	1.36	.31**	-.26**	.08*	-.09**	.20**	.16**	.28**	-.03	-								
10. CO [a]	3.52	1.18	.10**	0.08	.01	.03	.10**	-0	.07*	-.01	.10**	-							
11. JD [a]	3.38	1.3	-.13**	.38**	.05	.04	-.14**	-.11**	-.15**	.03	-.53**	.13**	-						
12. DE [a]	2.24	1.35	-.16**	.23**	.12*	-.05	-.18**	-.02	-.18**	.06	-.30**	-.18**	.23**	-					

Table 1 *(continued)*

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
13. AU [a]	3.39	.94	.27**	-.14**	.06	-.04	.21**	.11**	.25**	-.03	.78**	.69**	-.30**	-.33**	-				
14. PA [a]	2.81	1.04	-.19**	.39**	.11**	.00	-.20**	-.08*	-.21**	.06	-.52**	-.04	.78**	.79**	-.40**	-			
13. OD [b]	0.27	.44	.17**	-.23**	.06	-.09**	.13**	.14**	.17**	.07*	.64**	-.23**	-.52**	-.23**	.32**	-.47**	-		
14. CO [b]	0.33	.47	.04	-.04	-.06	.07*	.08*	-.03	.06	.01	-0.02	.57**	-.08**	-.26**	.34**	-..22**	-.42**	-	
15. JD [b]	0.29	.46	-.12**	.20**	.00	.06	-.11**	-.08**	-.14**	.02	-.48**	-.21**	.60**	.09**	-.48**	.43**	-.39**	-.45**	-
16. DE [b]	0.11	.31	-.12**	.10**	.00	-.05	-.14**	-.01	-.13**	.04	-.17**	-.21**	-.02	.61**	-.26**	.38**	-.21**	-.24**	-.22**

Note. *N* = 981. Standard errors are in parentheses. IC = Individual Competence, G = Group, O = Organization, C = Context, S = Situation, TP = Time Pressure, D = Danger, F = Formalization, OD = Own Decision, CO = Consultation, JD = Joint Decision, DE = Delegation, AU = Autocratic Decision, PA = Participative Decision, IN = Independence a = Adequacy Ratings, b = Choice Ratings. *p<.05, **p<.01.

Table 2

Multiple Linear Regression Analysis: Scenario Structure Predicting Scenario Interpretation

	Interpretation									
Structure	Indiv. Comp		Group		Organization		Context		Situation	
Time Pressure	.14**	(4.49)	.01	(0.22)	.14**	(4.42)	-.08**	(-2.91)	.17**	(6.28)
Danger	.21**	(6.90)	-.03	(-0.78)	.10**	(3.08)	.15**	(5.20)	.50**	(18.38)
Formalization	-.11**	(-3.51)	-.06	(-1.87)	.23**	(7.42)	.42**	(14.54)	.06*	(2.36)
F	27.82**		1.54		28.28**		91.52**		135.72**	
R^2	.09		.01		.08		22		.29	
Adjusted R^2	.07		.00		.08		.22		.29	

Note. $N = 981$. Standard regression weights (β) and in parentheses the according *t*-values. *$p<.05$, **$p<.01$.

Table 3

Multiple Linear Regression Analysis: Scenario Structure Predicting Adequacy of Decision Behavior

	Decision Behavior											
Structure	Own Decision		Consultation		Joint Decision		Delegation		Autocratic		Participative	
Time Pressure	14**	(4.65)	-.03	(-0.83)	-.09**	(-2.91)	.00	(-0.04)	.09**	(2.77)	-.06	(-1.86)
Danger	.28**	(9.12)	.07*	(2.19)	-.15**	(-4.68)	-.19**	(-6.03)	.25**	(7.90)	-.22**	(-6.90)
Formalization	-.05	(-1.46)	-.02	(-0.68)	.04	(1.23)	.08*	(2.48)	-.05	(-1.48)	.08*	(2.39)
F	37.43**		1.81		11.18**		13.39**		24.80**		18.91**	
R^2	.10		.01		.03		0.04		.10		.06	
Adjusted R^2	.10		.00		.03		0.04		.10		.05	

Note. $N = 981$. Standard regression weights (β) and in parentheses the according t-values. *$p<.05$, **$p<.01$.

Table 4

Multiple Linear Regression Analysis: Scenario Interpretation Predicting Adequacy of Decision Behavior

	Decision Behavior											
Interpretation	Own Decision		Consultation		Joint Decision		Delegation		Autocratic		Participative	
Individual Competence	.27**	(9.12)	.09**	(2.84)	-.09**	(-3.14)	-.13**	(-4.31)	.25**	(8.20)	-.15**	(-4.97)
Group	-.27**	(-9.39)	.09**	(2.89)	.37**	(12.61)	.21**	(6.82)	-.14**	(-4.72)	.37**	(12.77)
Organization	.12**	(3.96)	-.01	(-0.34)	.00	(-0.06)	.10**	(3.27)	.08*	(2.52)	.06*	(2.21)
Context	-.13**	(-4.24)	.03	(0.78)	.08**	(2.64)	-.02	(-0.50)	-.08*	(-2.42)	.04	(1.35)
Situation	.16**	(5.43)	.08*	(2.39)	-.12**	(-3.91)	-.14**	(-4.54)	.17**	(5.34)	-.17**	(-5.62)
F	50.38**		4.92**		24.53***		23.78**		30.08**		51.65**	
R^2	.21		.03		.22		.11		.13		.21	
Adjusted R^2	.20		.02		.21		.10		.13		.21	

Note. $N = 981$. Standard regression weights (β) and in parentheses the according *t*-values. *$p<.05$, **$p<.01$.

Table 5

Multiple Logistic Regression Analysis: Scenario Structure Predicting Choice of Decision Behavior

	Decision Behavior							
Structure	Own Decision		Consultation		Joint Decision		Delegation	
Time Pressure	.26**	(15.11)	-.07	(1.33)	-.14*	(5.14)	.03	(0.08)
Danger	.34**	(27.99)	.11	(3.67)	-.24**	(18.04)	-.34**	(17.45)
Formalization	-.13*	(4.76)	.00	(0.00)	.05	(0.78)	.15	(2.87)
χ^2	54.01**		4.87		24.85**		18.99**	
df	3		3		3		3	
Nagelkerkes' R^2	.08		.01		.04		.04	
Log-likelihood	1084.59		1235.49		1161.03		644.36	

Note. N = 981. Standard regression weights (β) and in parentheses the according *Wald*-values. *p<.05, **p<.01.

Table 6

Multiple Logistic Regression Analysis: Scenario Interpretation Predicting Choice of Decision Behavior

	Decision Behavior							
Interpretation	Own Decision		Consultation		Joint Decision		Delegation	
Individual Competence	.41**	(19.83)	.07	(0.88)	-.23**	(8.85)	-.34**	(9.48)
Group	-.48**	(53.88)	-.04	(0.41)	.41**	(36.29)	.29**	(8.28)
Organization	.22**	(10.23)	-.11	(3.43)	-.04	(0.38)	-.01	(0.01)
Context	-.26**	(16.36)	.09	(2.71)	.15*	(6.20)	-.09	(1.08)
Situation	.31**	(14.33)	.13	(3.52)	-.22**	(9.09)	-.30**	(9.50)
χ^2	112.42**		13.69*		67.10**		35.50**	
df	5		5		5		5	
Nagelkerkes' R^2	.16		.02		.09		.07	
Log-likelihood	1026.19		1226.66		1118.79		627.85	

Note. N = 981. Standard regression weights (β) and in parentheses the according *Wald*-values. *p<.05, **p<.01.

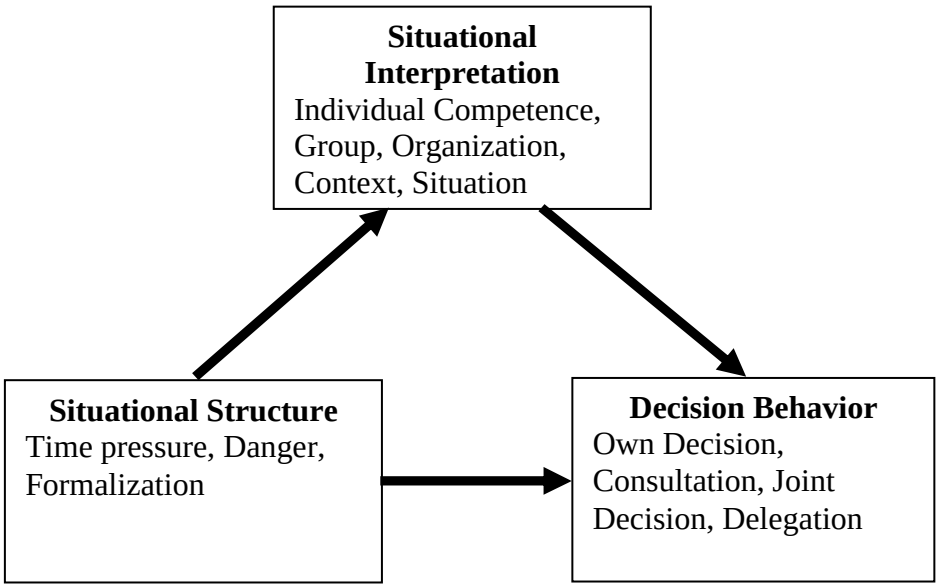

Figure 1. The effect of situational structure on decision behavior mediated through the situational interpretation.

5

Predicting Decision Behavior II: Understanding the Relationship between Culture, Personality, Scenario Interpretation, and Decision Behavior

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Abstract

Culture and personality are argued to influence the interpretation of a scenario and therefore influence leadership behavior. The online study presented in this paper analyses the influence of own culture and personality on the interpretation of different scenarios. A new approach introduced by Seiler and Pfister (2009) was used to measure the interpretation of a scenario. Additionally, the influence of both own culture and personality on decision behavior was analyzed. The results show that both own culture and personality influence the interpretation of a scenario and decision behavior. The effect of personality on decision behavior was mediated by the interpretation of the scenario. The effect of own culture on decision behavior was mediated by the interpretation of the scenario and personality. Additionally, the link between own culture and personality could be shown at the level of the individual. The results underline that the dynamic interaction between the individual, the environment, and the situation define behavior. They further support the use of the five factors from the 'Dynamic Five-Factor Model of Leadership' (Seiler & Pfister, 2009) as a taxonomy to measure the influence of the interpretation of a scenario on leadership behavior.

Keywords: leadership, culture, personality, interpretation, decision behavior

Introduction

Andersen (2006) stated that "human behavior reflects the continuous interaction of many forces both in the person, and in the environment or situation" (p. 1086). Hence, leadership behavior can be seen as a function of the individual, the environment the individual is living in, and the situation the individual is confronted with at that very moment (Seiler & Pfister, 2009). Within leadership behaviors, making decisions is a key task of leaders around the globe (Yukl, 2010). In doing so, a leader has a set of social behaviors on the basis of which to make a decision. These behaviors differ in the level of participation of others in the decision process and range from deciding alone to delegating the decision to others. They are commonly known as decision behaviors (Yukl, 2010).

As decision behavior is a central part of leadership behavior, it is affected by the individual, the environment, and the situation. Many studies have shown that situational aspects (Field, Read, & Louviere, 1990; Heller & Yukl, 1969; Vroom & Jago, 1988; Vroom & Yetton, 1973; Yukl, 2010; Yukl & Fu, 1999) and the individual interpretation of a situation (Pfister, Seiler, & Jonas, 2011) are important influencing factors on decision behavior. But culture, which is a part of the environment (Seiler & Pfister, 2009), was also shown to influence decision behavior (Dickson, Den Hartog, & Mitchelson, 2003; Jago et al., 1993; Sagie & Aycan, 2003). Personality, an individual factor, is argued to determine decision behavior as well (Ashour & England, 1972; Dhanes, 2000; Leana, 1986; Tett & Jackson, 1990). Since contradictory results exist, however, the influence of personality is still under debate (Andersen, 2006). Personality has an influence on

other more general leadership behaviors, for example transformational and transactional leadership behavior (Judge & Bono, 2000; Lim & Polyhart, 2004).

Nevertheless, there is still a lack of research on how culture and personality influence decision behavior at the level of the individual and in specific leadership scenarios. Additionally, it is unclear through which processes this influence may occur. Several researchers argued that culture (Church, Katigbak, & Del Prado, 2010; Ten Berge & De Raad, 2002; Walumbwa, Lawler, & Avolio, 2007) as well as personality (Reynolds & Karraker, 2008) influence the interpretation of situations. Through this change in the interpretation they affect leadership behavior. A main problem for a thorough analysis of their influence on the interpretation of a situation lies in the lack of an agreed-upon taxonomy for situations (Hogen, Harkness, & Lubinsky, 2000). Therefore, "we should develop strategies for systematically investigating situations" (Ten Berge & De Raad, 2002, p. 81). With such a taxonomy on hand, differences in the interpretation of various situations, as well as the influence of different cultural dimensions or different personality traits on the interpretation, could be measured. This would offer the possibility of analyzing through which processes culture, personality, and situation interpretation influence decision behavior.

Hence, the first goal of the study presented in this paper is to measure the influence of the own culture and personality on the interpretation of several situations on the level of the individual. A new holistic approach recently introduced by Seiler and Pfister (2009) is used to measure the interpretation of a situation. The second goal is to analyze, whether own culture and personality influence decision behavior. The final goal is to analyze, whether the possible

effects of own culture and personality are mediated by the interpretation of the situation.

The contribution of this paper to leadership research is therefore threefold. First, testing a new way to directly measure the influence of culture and personality on the interpretation of a situation opens up a wide range of further research in leadership, culture, and personality. It additionally addresses one of the great research gaps still existing in these research fields. Second, by analyzing the effects of culture and personality on decision behavior at the individual level, further insight is given into how important these two sources of influence are for decision behavior. Third, by analyzing the mediation effects between culture, personality, situation interpretation, and decision behavior, further insight is offered on the dynamic interaction of individual, environment, and situation and the effects on leadership behavior.

Scenario Interpretation and Decision Behavior

Time pressure and danger, the distribution of information between the leader and followers, the degree of formalization, and many other situational aspects directly affect decision behavior. Depending on these aspects, people either prefer a more autocratic or more participative way of reaching a decision (Field et al., 1990; Heller & Yukl, 1969; Vroom & Jago, 1988; Vroom & Yetton, 1973; Yukl, 2010; Yukl & Fu, 1999). Seiler, Pfister and Ooi (2010) state that together these aspects generate the structure of a situation. In two studies, they additionally demonstrated that these aspects influence the interpretation of a situation. They measured this interpretation with the five factors introduced in the ‘Dynamic Five-Factor Model of Leadership’ (DFFML) of Seiler and Pfister (2009). The five

factors are: (1) a leader's individual competence, (2) the group he or she is working with, (3) the organization in which they are working, (4) the context in which they are embedded, and (5) the immediate situation they are confronted with at a specific point in time. Respondents rated the influence of each factor independently of the other factors within a situation but dependently on the situation itself. As we use the five factors of the DFFML to measure the interpretation of a situation, a wording conflict becomes inevitable: one of the five factors is termed *situation*. Therefore, we will use the term *situation* only for the specific factor of the DFFML. In all other cases we will use the term *scenario* instead.

Pfister et al. (2011) used the same factors to analyze the influence of the scenario structure, which was manipulated using the three variables time pressure, danger, and formalization, on decision behavior, and the interpretation of the scenario on decision behavior. The systematic influence of the interpretation could be shown for the adequacy rating of each decision behavior as well as for the choice of a decision behavior in several different leadership scenarios. For example, the perceived importance of the factors 'individual competence', 'organization', and 'immediate situation' increased the adequacy rating as well as the frequency of choice for making an own decision. The perceived importance of the factors 'group' and 'context' decrease the ratings and frequency of choice accordingly. Additionally, measuring the interpretation of the scenario was superior to measuring the structure of a scenario for predicting decision behavior. The five factors mediated the effect of the structure. Hence, we hypothesize that the five factors measured in a scenario systematically predict decision behavior.

Hypothesis 1: The five factors significantly predict the adequacy rating and the frequency choice for a decision behavior.

Culture and Personality

Cultural differences can be measured on a wide range of dimensions. The most prominent approach to measuring culture is the one of Hofstede (1980, 2001). He introduced five cultural dimensions which differentiate between cultures. These dimensions are *uncertainty avoidance*, *power distance*, *long-term orientation*, *masculinity vs. femininity*, and *individualism vs. collectivism*. Hofstede's dimensions are still subject to debate (Dickson et al., 2003; Hofstede, 2006; House, Hanges, Javidan, Dorfman, & Gupta, 2004). Although widely taught and used in practice, Hofstede's dimensions are argued to measure very different cultural aspects, which should be measured separately such as the dimension individualism vs. collectivism, where it is unclear if collectivism measures in-group collectivism or institutional collectivism. House et al. separated Hofstede's dimensions into nine different culture dimensions, which were then used in the GLOBE (Global Leadership and Organizational Behavior) study. The GLOBE study established the applicability and reliability of these nine dimensions in over 60 cultures. These dimensions are: *power distance*, *uncertainty avoidance*, *gender egalitarianism*, *future orientation*, *performance orientation*, *humane orientation*, *in-group collectivism*, *societal collectivism*, and *assertiveness*.

Just as with culture, personality can be measured on different dimensions. The most prominent dimensions, or factors as they are called, are the 'Big Five' personality factors introduced by Costa and McCrae (1992). The five factors are: openness to experience, conscientiousness, neuroticism, extraversion, and

agreeableness. Studies showed that these five personality factors can be used in different cultures to measure personality (Schmitt, Realo, Voracek, & Allik, 2008; Shao & Webber, 2004; Silverthorne, 2001). As such, they can be seen as reliable and universal constructs (McCrae et al., 2005). Oishi and Roth (2009) additionally showed that differences between cultures on their personality scales were not due to the way the 'Big Five' personality tests were applied or translated, nor due to the self reports method. Therefore, the measured cultural differences in the 'Big Five' personality factors indicated that culture and personality are somehow related.

Hofstede and McCrae (2004) demonstrated that the five personality factors correlate systematically with Hofstede's cultural dimensions. McCrae, Terracciano, Realo, and Allik (2008) further showed that there are relationships between the nine GLOBE dimensions and the 'Big Five' personality factors. Although the debate surrounds whether culture influences the development of personality or vice versa (Byrne & Bradley, 2007; Triandis & Suh, 2002), the 'Big Five' show different distributions in different cultures (Allik & McCrae, 2004; Allik & Realo, 2009). Hence, cultural factors interact with personality (Kaushal & Kwantes, 2006). We therefore hypothesize that the nine GLOBE cultural dimensions significantly predict the 'Big Five' personality factors.

Hypothesis 2: The nine GLOBE culture dimensions significantly predict the 'Big Five' five personality factors.

Culture, Personality, and Scenario Interpretation

Generally, there is sparse evidence of the influence of culture on the construal and interpretation of scenarios (Church et al., 2010). One main reason for this lack of evidence is that 'there is no agreed-upon taxonomy for situations' (Hogan et al.,

2000, p. 291). Nevertheless, an argument can be made for the influence of culture on the interpretation of scenarios. Geletkanycz (1997) states that cultural values shape managerial views of the environment. This shaping can lead to different perceptions and interpretations of a scenario. Similarly, Kanungo and Jaeger (1990) as well as Kanungo, Aycan, and Sinha (1999) argue that the socio-cultural environment influences individual behavior through individual values being shaped by wider societal values. This in turn affects individual perception, attitudes, and behavior (Walumbwa et al., 2007). Church et al. (2010) showed that people from different cultures do construe scenarios differently. But the cultural differences were not measured on any of the commonly used dimensions. Hence, we hypothesize that the nine GLOBE culture dimensions have an influence on the interpretation of a scenario, measured with the five factors of the DFFML.

Hypothesis 3: The nine GLOBE cultural dimensions significantly predict the perceived importance of the five factors of the DFFML.

Just as with the research on culture, the research on the influence of personality on the interpretation of scenarios is confronted with the lack of a common taxonomy for scenarios. Similarly to the influence of culture, an argument can be made for the influence of personality. Reynolds and Karraker (2003) state that a person will respond to that part of a scenario most salient to him or her at that particular point in time. Personality traits mainly influence which part of a scenario a person will find salient and important. This different interpretation will likely lead to different behaviors. They argue that trait descriptions may serve as indicators for which part of the scenario will be seen as most salient and significant. Hence, we hypothesize that the ‘Big Five’ personality traits influence

which of the five factors of the DFFML in a scenario will be seen as most important.

Hypothesis 4: The 'Big Five' personality factors significantly predict the perceived importance of the five factors of the DFFML.

Culture, Personality, and Decision Behavior

On a societal level, culture influences leadership behavior (House et al., 2004), and clear links between culture and the preference for autocratic and participative leadership can be found (Dickson et al., 2003). Moreover, Reber, Jago, and Böhnisch (1993) analyzed the influence of cultural differences on participative decision-making in seven European countries. They found that German, Austrian, and Swiss managers were most participative, and Polish and Czech managers most autocratic in decision-making. But the amount of participation seemed to be scenario-dependent. Polish managers, for example, were more participative in scenarios concerning trivial matters compared to scenarios relating to important issues (Jago et al., 1993). Sagie and Aycan (2003) further found that power distance and collectivism influence the use of participative decision-making. High power distance led to less participative decision-making, while high collectivism had the opposite effect. These findings support Dorfman et al.'s (1997) statement that participative and directive leadership are culturally contingent. Hence, as the different-decision behaviors are parts of an autocratic or participative approach in decision making, they should be to some degree influenced by culture.

Hypothesis 5: The nine GLOBE cultural dimensions significantly predict the adequacy rating and the frequency choice for a decision behavior.

Research on the impact of a leader's personality on decision behavior is scarce and contradictory. Ashour and England (1972) examined the effect of a leader's personality on the amount of delegation behavior. They found that a leader's personality, for example the amount of dominance, influenced the amount of delegation behavior. The more dominant people were, the less delegation behavior was shown. Leana (1986) also analyzed the effect of a leader's personality on delegation behavior but found no relationship. Tett and Jackson (1990) found that personality influences managerial participative-decision making. But contrary to the findings of Ashour and England, dominance was a positive predictor for participative decision behavior. In a more recent study, Dhanes (2000) analyzed the influence of personality on decision behavior and again found no relationship.

Hence, Andersen (2006) stated that personality cannot explain leadership behavior as the studies undertaken so far have yielded inconsistent results. But Andersen as well as Moss and Ngu (2006) did not doubt that personality somehow affects leadership behavior. Some relationship seems to exist between a manager's personal values and leadership style (Byrne & Bradley, 2007). Research in the field of transformational leadership found that the 'Big Five' personality factors are predictors for transformational behavior (Judge & Bono, 2000) and transactional behavior (Bono & Judge, 2004). Similar results were found by Lim and Polyhart (2004) and in multinational studies by Polyhart, Lim, and Chan (2001) as well as by Shao and Webber (2004).

Up to now, the 'Big Five' personality factors were not used to directly predict individual decision behavior. But an argument can be made for the 'Big Five' and their effect on decision behavior. Agreeableness may directly influence decision

behavior, as agreeable people consider the opinion of others as important. Neuroticism may influence decision behavior as anxious people may be hesitant to make decisions alone and prefer making them in a group. The responsibility can then be distributed among the group of decision makers. Hence, we hypothesize that there is a certain influence of personality on decision behavior.

Hypothesis 6: The 'Big Five' personality factors significantly predict the adequacy rating and the frequency of choice for decision behavior.

Possible Mediations

Vinkenburg, Koopman, and Jansen (2001) argued that factors of a scenario tend to have a wider impact on behavior choices than personal factors. This may be due to several mediation effects. The scenario interpretation may mediate the effect of culture and personality on decision behavior. Similarly, personality may mediate the effect of culture on the scenario interpretation and on decision behavior. Finding these mediating effects would to some degree explain the importance of the scenario for behavior. Cultural and personality differences in decision behavior would then be due to the effect they have on the scenario interpretation. The findings would additionally support the view of a dynamic interaction of individual, environmental, and situational factors generating leadership behavior.

Method

Participants and Procedure

The participants for this study were recruited through email or within a university course. The participants either completed an online or a paper and pencil version of the survey. The paper and pencil version was structured exactly the

same way as the online version. In both the online and the paper and pencil version, participants could choose to participate or quit the survey after having read the confidentiality statement and detailed information on the study.

The sequence of the following three parts of the survey, containing the culture questionnaire, the personality questionnaire, and the nine leadership scenarios that had to be rated, was randomized. The sequence of the nine leadership scenarios was also randomized. At the end, the participants had to answer several demographic questions (age, sex, education level, leadership experience, English proficiency) before they received an individualized automated feedback in the online version. The feedback indicated how they perceived their culture, their personality, the importance of the five factors in general, their overall adequacy ratings of the decision behaviors, and how often they chose which decision behavior.

14 different countries (N=1423) participated in the online survey of which 1 English-speaking country used the paper and pencil version. Data from participants who did not complete the survey, or showed other deviations such as rating all situations exactly the same, were excluded. For further analysis only countries with sample sizes of more than 50 were used. Out of the 14 countries, 10 fulfilled the criteria with a total sample size of (n=1200). Table 1 shows further details for each sample in each country. Overall, the mean age of the participants was 27.5 years (SD=6.5), and 606 (50.5%) of the participants were male and 594 (49.5%) were female. Participants were mainly university students (n=876, 73%) and cadets of military academies (n= 324, 27%) who pursued an academic study. Of these 1187

participants (99%) held a highschool degree or higher. The study was rated as easy to answer (*M*=2.2, *SD*=0.90) on a scale from 1 (*very easy*) to 5 (*very difficu*lt).

[Insert Table 1 here]

Instruments

The online study was constructed and data was collected using the online research tool provided by the website www.unipark.de from autumn 2009 to spring 2010. The own culture was measured using a self generated online version of the "as is" questionnaire for measuring societies that was used in the GLOBE study (House et al., 2004). The questions were placed in the same order and the same format as in the original GLOBE questionnaire. Participants had to rate their culture by means of 39 items. Two different question formats were used. The first format involved questions starting with the sentence "In this society, people…" followed by a seven-point scale where the two extremes and the middle were anchored with specific statements (i.e. are physical vs. not physical). In the second format, participants had to rate their agreement to specific statements (e.g. "In this society people are treated equal") on a seven-point scale ranging from 1 (*completely agree*) to 7 (*completely disagree*) with the middle point being 4 (*do neither agree nor disagre*e). The 'uncertainty avoidance' scale consisted of 4 items (α=.57), the 'future orientation' scale of 5 items (α=.66), the 'power distance' scale of 5 items (α=.67), the 'in-group collectivism' scale of 4 items (α=.45), the 'humane orientation' scale of 5 items (α=.77), the 'performance orientation' scale of 3 items (α=.51), the 'societal collectivism' scale of 4 itmes (α=.54), the 'gender egalitarianism' scale of 5 items (α=.51), and the 'assertiveness' scale of 3 items (α=.49).

The personality traits were measured using a modified online version of the 'Big Five' personality test by Buchanan, Johnson, and Goldberg (2005). Nine items from the original questionnaire were removed since in the analysis by Buchanan et al. they loaded on more than one of the personality factors. The same order and format as in the original questionnaire was used. Participants had to rate their own personality traits with the remaining 41 different statements. Each statement had to be rated on a five-point scale ranging from 1 (*completely agree*) to 5 (*completely disagree*). The 'extraversion' scale consisted of 9 items (α=.80), the 'agreeableness' scale of 7 itmens (α=.64), the 'conscientiousness' scale of 10 items (α=.77), the 'neuroticism' scale of 8 items (α=.77), and the 'openness to experience' scale of 7 items (α=.70).

As for measuring the interpretation of a scenario, the same method was used as in the study by Pfister et al. (2011). Participants had to rate the effect of the five factors within each presented leadership scenario using the question, "How strong is the effect of the following factors on your behavior?" Each factor had to be rated separately on a five-point scale ranging from 1 (*not at all*) to 5 (*very strong*). As the content of each scenario was manipulated by describing either a high or low time pressure, danger, or formalization, each of these three variables had to be rated on a similar five-point scale as a manipulation check. The rating was preceded by the question, "How strong do you estimate the following aspects of the situation?"

Five different leadership behaviors had to be rated. These were: own decision, consultation and deciding alone, joint decision with others, delegating the decision, and ignore / wait. The decision behavior 'ignore / wait' was added to give the

participants the opportunity not to decide. The adequacy of the five different decision behaviors in each scenario was rated using the following question: "Regarding the situation mentioned above, how adequate do you think are the following ways to decide what to do?" Each decision behavior was rated separately on a five-point scale ranging from 1 (*very inadequate*) to 5 (*very adequate*). In each scenario, participants had to choose one of the five decision behaviors as the behavior they would employ in this specific scenario using the following question, "Which way of deciding would you choose in this situation?" The decision behaviors were presented in a list from which one behavior had to be selected for each specific scenario.

Leadership Scenarios

Nine scenarios out of the two previous studies by Seiler et al. (2010) were selected. The same scenarios were used in the study of Pfister et al. (2011). All scenarios had a unique combination of evaluations of the five factors and the three structure variables pre-tested in those three studies. The length of each scenario was about one quarter-to-half a page. The different scenarios were: leading a business delegation in a foreign country, reacting to customer expectations, a government official's visit during mine clearing, fire-fighting, organizing a music festival, corruption in the company while fund raising, surprise assignment on a Friday afternoon, head of the traffic coordination center facing a severe accident, and the head of logistics accused of drug-trafficking. Participants had to put themselves in the position of the leader presented in each scenario. Relevant background information was given on all relevant aspects including the five factors.

Data Correction, Data Aggregation, and Data Analysis

Data correction. A first analysis showed that all items and scores that were corrected for the cultural response bias (House et al., 2004) correlated high ($r >$ .90) with the according uncorrected items and score. Similar results were obtained in the analysis for the corrected cultural dimensions, personality factors, scenario ratings, and decision behavior ratings. Therefore, according to House et al. (2004) the data can be considered free from cultural response biases. The original uncorrected responses were used in the analysis.

Data aggregation. A combined adequacy score was calculated for the two decision behaviors 'own decision' and 'consultation' by calculating their mean. Both decision behaviors can be seen as a measurement for the adequacy of 'autocratic decision behavior' since in both decision behaviors the final decision lies with the leader. A similar mean was calculated for the two decision behaviors 'joint decision' and 'delegation'. The mean can be seen as a measure for the adequacy of 'participative decision behavior'. If the choice for a decision behavior within a scenario is represented on a five-point scale ranging from 1 (*own decision*) to 5 (*ignore / wait*), this scale can be seen as an inverted scale measuring the 'independence of a decision' from others. The ratings of the scenarios and the decision behaviors were then aggregated for the nine tested scenarios by calculating a mean score for each of the five factors, the single adequacy ratings of each decision behavior, the autocratic and participative leadership scores, as well as the independent decision score. As both culture and personality are stable constructs and should show their influence in each scenario, their influence has to be measurable when the ratings of all scenarios are aggregated.

Data analysis. In all the following regressions and mediation analyses were controlled for age, sex, leadership experience, and education. To analyze the influence of own culture and personality on the scenario interpretation and on decision behavior, the influence of scenario interpretation on decision behavior, as well as the influence of the own culture on the individual personality, multiple linear regression analysis applying the OLS method was used.

To analyze the possible mediating effects, the multiple mediation approach of Preacher and Hayes (2008) was used. One limitation of this multiple mediation analysis must be mentioned. The multiple mediations were analyzed only for the effects of each single independent variable on one dependent variable. Hence, the influence of several independent variables (similar to the multiple regression) which were mediated could not be analyzed simultaneously. Therefore, the results of the multiple mediation analysis may diverge from the results of the multiple linear regression, as effects of other independent variables are not controlled for. Differences in the regression coefficients may occur. We calculated from all possible effects between the predictor and the outcome variables the percentage of significant effects. From these significant effects we again calculated the percentage of those effects that were significantly affected by the mediating variables. In sum they provided a general picture of the mediation effects.

Results

[Insert Table 2 here]

Culture, Personality, and Scenario Interpretation

Table 2 shows the descriptive statistics and the inter-correlations among the measured variables. ‘Consultation’ was rated as the most adequate and ‘ignore /

wait' the least adequate decision behavior. Similarly, 'consultation' was the most chosen decision behavior and 'ignore / wait' the least often chosen. Table 3 shows the results of the multiple linear regressions for own culture predicting the individual personality.

[Insert Table 3 here]

As predicted by Hypothesis 2, own culture predicted personality. Each of the nine cultural dimensions predicted at least one personality factor, although the sizes of the standardized regression coefficients were small (β<.10). 'Future orientation', 'in-group collectivism', 'humane orientation', and 'performance orientation' had the highest impacts on the perception of the personality. For the three personality factors 'agreeableness', 'conscientiousness', and 'neuroticism' the explained variance was between 5-6%. Hence, the own culture systematically predicted personality, although own culture only explained a small amount of variance. Hypothesis 2 was therefore accepted, with the limitation that the influence own culture on personality is low.

Table 4 shows the results of the multiple linear regressions for own culture predicting the interpretation of a scenario.

[Insert Table 4 here]

As stated in Hypothesis 3, own culture influenced the interpretation of a scenario. But, of the nine measured culture dimensions, only five showed a significant influence on one or more of the five factors of the DFFML measured for each scenario. The individual perception of 'uncertainty avoidance', 'future orientation', 'performance orientation', 'societal collectivism', and 'gender egalitarianism' did not affect the overall perceived importance of the five factors.

‘Power distance’ was the cultural dimension with the highest influence affecting the overall percieved importance of the factors ‘individual competence’, ‘group’, and ‘situation’. ‘In-group collectivism’ affected the overall perceived importance of the factor ‘context’. Except for ‘power distance’ the standardized regression coefficients were low (β<.10). Additionally, the explained variance for each factor did not exceed more than 4%. Hence, there was some systematic influence of culture on the perception of the overall importance of the five factors used to measure the interpretation of a scenario, but the influence was small. Hypothesis 3 was therefore accepted, with the limitation that the influence of own culture on the interpretation of a scenario is low.

Table 5 shows the results of the multiple linear regressions for individual personality predicting the interpretation of a scenario.

[Insert Table 5 here]

As predicted by Hypothesis 4, personality influenced the interpretation of a scenario. Of the ‘Big Five’ personality factors, three systematically influenced the overall perceived importance of the five factors from the DFFML. ‘Neuroticism’ as well as ‘openness to experience’ did not affect any of the five factors. But each of the five factors was at least influenced by one personality factor. However, the strength of the influences was low, as none of the regression coefficients was higher than β=.11. In addition, the explained variance for each factor did not exceed 4%. Hence, there was some systematic influence of personality on the perception of the overall importance of the five factors of the DFFML used to measure the interpretation of a scenario, but the influence was low, just as for own

culture. Hypothesis 4 was therefore accepted, with the limitation that the influence of personality on the interpretation of a scenario is low.

Mediation. The multiple mediation analysis showed that own culture influences the scenario interpretation significantly in 15 out of 45 possible cases (33%) when mediated by the 'Big Five' personality factors. Out of these 15 cases, 8 were partially or fully mediated by the 'Big Five' personality factors (53%). The cultural dimensions 'power distance', 'societal collectivism', and 'gender egalitarianism' influenced the perception of the scenario directly. The effects of 'in-group collectivism', 'humane orientation', 'performance orientation', and 'assertiveness' were partially or fully mediated by personality.

Scenario Interpretation, Culture, Personality, and Decision Behavior

Adequacy of decision behavior. Table 6 shows the results of the multiple linear regressions for the overall perceived importance of the five factors of the DFFML predicting the adequacy rating for each of the five decision behaviors and the aggregated adequacy measures for autocratic and participative decision behavior.

[Insert Table 6 here]

As predicted by Hypothesis 1, the overall perceived importance of the five factors systematically predicted the adequacy rating of each decision behavior as well as the aggregated measures. Although the two factors 'individual competence' and 'group' were the strongest predictors, the three remaining factors 'organization', 'context', and 'situation' had a systematic impact on different decision behaviors. For the aggregated ratings, the factor 'individual competence' was the only predictor for 'autocratic decision behavior'. For the aggregated measure of 'participative decision behavior', the factors 'group', 'organization',

and ‘situation’ were significant predictors as well. Only the factor ‘context’ did not predict the adequacy rating of either autocratic or participative decision behavior. The explained variance ranged between 7 to 22% for single decision behaviors and between 11 to 22% for aggregated decision behaviors. Comparing the predictive quality of the five factors for the five decision behaviors the prediction for ‘consultation’ was highest and for ‘delegation’ lowest. Hypothesis 1 was therefore accepted without limitations.

Table 7 shows the results of the multiple linear regressions for own culture predicting the adequacy rating for each of the five decision behaviors and the aggregated adequacy measures for autocratic and participative decision behavior.

[Insert Table 7 here]

Hypothesis 5 predicted that own culture predicted decision behavior. The results showed that of the nine cultural dimensions all had at least a small influence on at least one decision behavior. For the adequacy rating of the ‘ignore/wait’ behavior the two cultural dimensions ‘power distance’ and ‘performance orientation’ were predictors with β>.10. For all other decision behaviors the predictive strength of the cultural dimensions was smaller (β<.10). The explained variance ranges between 1-2% for the adequacy ratings, except for the ‘ignore / wait’ behavior where it reaches 6%. Hence, except for the ‘ignore / wait’ behavior, own culture predicted the adequacy for the decision behaviors only to a very small degree (1%). For the aggregated adequacy ratings, own culture only had a significant impact on the adequacy rating of ‘autocratic decision behavior’ and not for ‘participative decision behavior’. But again, the explained variance only

reached 1%. Hypothesis 5 was accepted, with the limitation that, apart from the decision behavior ‘ignore / wait’, own culture had a small significant effect.

Table 8 shows the results of the multiple linear regressions for personality predicting the adequacy rating for each of the five decision behaviors and the aggregated adequacy measures for autocratic and participative decision behavior.

[Insert Table 8 here]

Hypothesis 6 predicted that personality is a predictor for decision behavior. Similar to own culture, the ‘Big Five’ personality factors had the highest influence on the adequacy rating of the ‘ignore / wait’ behavior. The explained variance was 6%. But contrary to the cultural dimensions, the ‘Big Five’ personality factors only significantly influenced the adequacy rating of the three other decision behaviors ‘consultation’, ‘joint decision’, and ‘delegation’, explaining between 2-4% of the variance. The decision behavior ‘own decision’ was not significantly influenced by the personality factors. Apart from ‘extraversion’ all other personality factors predicted at least one decision behavior with a β>.10. ‘Agreeableness’, ‘conscientiousness’, and ‘openness to experience’ were negative predictors for the adequacy rating of ‘ignore / wait’. In contrast, ‘neuroticism’ was a positive predictor. ‘Neuroticism’ together with ‘agreeableness’ were positive predictors for the adequacy rating of ‘joint decision’. ‘Openness to experience’ was a negative predictor for the adequacy rating of ‘delegation,’ but a positive predictor for the adequacy rating of ‘consultation’. For the aggregated adequacy ratings, only ‘openness to experience’ was a significant positive predictor for ‘autocratic decision behavior’, whereby β<.10 and the explained variance was only 1%. Contrary to the culture dimensions, four of the five personality factors were

significant predictors for the adequacy rating of ‘participative decision behavior’ but only explained 2% of the variance. Hypothesis 6 was accepted, with the limitation that the influence of personality on decision behavior was low.

Mediation. Out of the 35 possible effects of the ‘Big Five’ personality factors on the five adequacy ratings and the two aggregated measures mediated by the five factors of the DFFML, 22 were significant (63%). Out of these 22 significant effects, 18 were partially or fully mediated by the five factors of the DFFML (81%). The personality factors ‘extraversion’ and ‘agreeableness’ were either fully or partially mediated. The effects of the personality factors ‘conscientiousness’, ‘neuroticism’, and ‘openness to experience’ were partially mediated, but also had direct effects on the decision behaviors.

When the mediation analysis was controlled for the effects of personality, 17 out of the 49 possible effects (35%) of the nine cultural dimensions on the five adequacy ratings, and the two aggregated measures were significant mediated by the five factors of the DFFML. Out of these, 16 were partially or fully mediated by the five factors of the DFFML (94%). If the mediation was controlled for the effects of the five factors of the DFFML, 15 out of the 49 possible effects (31%) of own culture on decision behavior were significant. Out of these, 10 are partially or fully mediated by the ‘Big Five’ personality factors (66%).

A comparison of the mediation effects for each cultural dimension on decision behavior, when controlled for personality or the scenario interpretation, showed that the effects of ‘power distance’ and ‘future orientation’ were fully mediated and the effects of ‘assertiveness’ partially mediated by the five factors of the DFFML. The effect of ‘uncertainty avoidance’ was fully mediated by the ‘Big

Five' personality factors. The effects of 'social collectivism', 'in-group collectivism', and 'gender egalitarianism' were partially mediated by the five factors of the DFFML as well as by the 'Big Five' personality factors.

Frequency of decision behaviors. Table 9 shows the results of the multiple linear regressions for the overall perceived importance of the five factors of the DFFML predicting the overall frequency of choice for each of the five decision behaviors and the aggregated tendency for making an independent decision.

[Insert Table 9 here]

Except for the frequency of choice for 'consultation' and 'ignore / wait', four of the five factors of the DFFML were significant predictors. But contrary to the adequacy ratings, the two factors 'individual competence' and 'group' were the main predictors for the frequency of choice for 'own decision' and joint decision' behavior. The explained variance was lower than for the adequacy ratings and ranged between 1-7%. Most variance was explained for the choice of 'own decision' behavior. Although two of the five factors were significant predictors for the frequency of choice of a decision behavior, the quality of predictions were lower than for the adequacy rating of each decision behavior. For the aggregated frequency of 'autocratic decision behavior' all five factors except the factor 'situation' were significant predictors and together explain 7% of the accumulated choice for 'autocratic decision behavior'. For the 'independence of decision' all factors except the factor 'situation' were significant predictors explaining 10% of the variance. These results provided further support for Hypothesis 1.

Table 10 shows the results of the multiple linear regressions for own culture predicting the overall frequency of choice for each of the five decision behaviors and the aggregated tendency for making an independent decision.

[Insert Table 10 here]

The results showed that none of the nine cultural dimensions were strong predictors for the frequency of choice for any of the decision behaviors (β>.10). Additionally, the explained variance did not surpass 1%. Except for 'joint decision' and 'delegation' own culture did not predict the frequency of choice for any other decision behavior. For the 'independence of decision-making' only 'power distance' had an influence, whereby the higher the power distance the more independent choices were made. But the amount of explained variance did not surpass 1%. Hence, these results only provided minimal support for Hypothesis 5.

Table 11 shows the results of the multiple linear regressions for personality predicting the overall frequency of choice for each of the five decision behaviors and the aggregated tendency for making an independent decision.

[Insert Table 11 here]

As with the results for own culture predicting the frequency of choice for each decision behavior, the 'Big Five' personality factors did not explain more than 1% of the variance. Only 'neuroticism' and 'openness to experience' were stronger predictors (β>.10). 'Neuroticism' was a negative predictor for the frequency of choice for 'own decision' and 'openness to experience' a negative predictor for the frequency of choice for 'delegation' behavior. 'Agreeableness' was a negative predictor for the frequency of choice for 'own decision', 'neuroticism' a positive predictor for frequency of choice for 'joint decision', and 'agreeableness' a

positive predictor for the frequency of choice for ‘consultation’. ‘Neuroticism’ and ‘openness to experience’ influenced the ‘independence for decision-making’, whereby an increase in ‘neuroticism’ increased the tendency to let others participate in the decision process. ‘Openness to experience’ had the opposite effect. But again, the explained variance did not surpass 1%. Hence, these results only provided minimal support for Hypothesis 6.

Mediation. Out of the 25 possible direct effects from the ‘Big Five’ personality factors on the frequency of choice for the five separate decision behaviors, 13 were significant (52%). Of these 13 significant effects, 8 were partially or fully mediated by the five factors of the DFFML (62%). The personality factors ‘extraversion’ and ‘agreeableness’ were fully or partially mediated by the five factors of the DFFML. Only the personality factor ‘openness to experience’ maintained its direct effects. The effects of the personality factors ‘conscientiousness’ and ‘neuroticism’ were fully or partially mediated by the five factors of the DFFML, but also maintained some direct effects on the frequency of choice. All effects of the ‘Big Five’ personality factors on the ‘independence for decision-making’ measure were mediated by the five factors of the DFFML.

Twelve out of the 25 possible effects (48%) from the nine cultural dimensions on the frequency of choice for the five decision behaviors were significant when the mediation analysis was controlled for the effects of personality. Out of these 12 significant effects, 9 were partially or fully mediated by the five factors of the DFFML (75%). Ten out of the 25 possible effects (40%) of the nine cultural dimensions on the choice of a decision behavior were significant, when the mediation was controlled for the effects of the five factors of the DFFML. Out of

these 10 significant effects, 7 were partially or fully mediated by the ‘Big Five’ personality factors (70%).

Comparing the mediation effects for each cultural dimension when controlled either for personality or the scenario interpretation (i.e. five factors of the DFFML) showed that the effects of the dimension ‘future orientation’ was fully mediated by the scenario interpretation. The direct effect of ‘gender egalitarianism’ on decision behavior remained. The effects of the remaining dimensions ‘power distance’, ‘in-group collectivism’, ‘societal collectivism’, and ‘uncertainty avoidance’ were partially mediated by the scenario interpretation and personality. The effect of the dimension ‘assertiveness’ was partially mediated only by personality. All effects of the cultural dimensions on the independence for decision measure were mediated by the scenario interpretation, when they were controlled for the influence of personality.

Discussion

The three goals of the study were to analyze the influence of culture and personality on the interpretation of a scenario, to analyze the direct effects of culture and personality on decision behavior, and to analyze whether possible effects of culture and personality are mediated by the interpretation of the scenario. Results from previous studies were replicated. The interpretation of a scenario was the best predictor for decision behavior as previously shown by Pfister et al. (2011). Further, the linkage between culture and personality found by several researchers (see Hofstede & McCrae, 2004) was replicated at the level of the individual.

A first important finding was that culture influences the interpretation of a scenario as well as personality does. Although their influence is small, it is measurable and systematic. Further, the effects of culture on the interpretation of a scenario are mediated by personality. These findings underline the argument of several researchers that both culture and personality have a direct influence on the interpretation of a scenario (Church et al., 2010; Kanungo et al., 1999; Kanungo & Jaeger, 1990; Walumbwa et al., 2007). Moreover, using the five factors from the 'Dynamic Five-Factor Model of Leadership' (Seiler & Pfister, 2009) to measure the interpretation of a scenario has proven very useful. This approach closes one of the main gaps in culture as well as personality research: the lack of a common taxonomy for scenarios with a broad utility (Church et al., 2010; Hogan et al., 2000, Ten Berge & De Raad, 2002). The five factors of the DFFML can be used as a broad taxonomy applicable in a wide range of scenarios (Seiler et al., 2010) and are able to measure the influence of both personality and culture on the interpretation of a scenario.

Further, analysis revealed that personality influences decision behavior. This adds a further positive finding to the ongoing discussion. Additionally, the culture influences decision behavior, although this influence only explains a very small amount of variance. But the effect of both culture and personality on decision behavior was systematic and measurable. The analysis of the different mediation effects showed that the effects of personality on decision behavior were mediated to a large degree by the interpretation of the scenario. Similarly, the effects of culture on decision behavior were systematically mediated by the interpretation of the scenario and the personality. These findings underline the arguments of

Vinkenburg et al. (2001) and Andersen (2006) that the situation plays the most important role for specific leadership behavior. Culture and personality exert their influence by changing the interpretation.

One reason why the effects of both culture and personality on the interpretation of the scenario and on decision behavior were so small may lie in the selection of the scenarios that were used. The nine scenarios were selected from the previous studies by Seiler et al. (2010) as well as from Pfister et al. (2011). The content of the scenarios was manipulated by describing a different level of time-pressure, danger, and formalization within the scenario description. As such, they over-represent a very specific form of a scenario. Both time-pressure and danger increase criticality. Formalization additionally minimizes the possibility for interpretation and behavior, as the well-defined rules, goals, and guidelines are described very clearly. Polyhart et al. (2001) showed that in critical scenarios behavior is more constant across people. It can be argued that this is due to a more constant interpretation of the scenario. Ten Berge and De Raad (2008) state that there are scenarios which allow less individual variance than others. Formalization is a way to decrease individual variance and therefore even this factor may have led to less individual variance in the interpretation of a scenario and in decision behavior. But although the scenarios used may foster a similar interpretation and similar behavior, individual as well as cultural differences were measurable. Finally, the study shows that behavior is a function of the individual, the environment, and the scenario (Andersen, 2006; Seiler & Pfister, 2009) whereby these three sources of influence interact with each other.

Limitations

The study presented has several limitations. First, the Cronbach's alpha of the cultural dimension scales are all questionable to unacceptable except the one of 'humane orientation. As scales were measured with 3 to 5 items and have to measure very broad cultural dimensions this low reliability has to be accepted. The reported reliabilities for the different scales in the GLOBE Study (House et al., 2004) was between .70 and 1.00 but were founded on a interrater correlation. This reliability test was not applicable in this study. Second, the effects of personality and culture on decision behavior and on the interpretation of a situation are small. Small standardized regression coefficients reached significance being not greater than β>.10. As sample size effects the significance level, it can be argued that the effects found are mostly due to the large sample. Separate analysis for every country sample can provide further insight into how strong the influence of culture and personality is. Third, the data of the separate scenarios was aggregated to an overall measurement of the five factors of the DFFML. This led to a loss of information on the influence of both culture and personality on the level of each separate scenario. Further analysis has to reveal if the influence of culture and personality differ between the scenarios used in this study. Fourth, the samples used were university and military academy students. Although over 60% had previous leadership experience, they were not in a leadership position at that time and over 90% had leadership experience of less than 5 years. This may influence the choice for a decision behavior as well as the interpretation of the leadership scenarios. A further problem with the samples was the unequal distribution of participants within the subsamples of the different countries. Subsample sizes

ranged from 55 to 236. Additionally, several cultural clusters and regions were not represented (South America, Africa, Scandinavia). The selection of all other countries was due to the interest of the participating researchers in the project. To analyze the effects on a societal level, insufficient country samples were collected. Fifth, the decision behavior was measured only on a behavior intention level and not real decision behavior. Hence, it is debatable whether the participants would behave the same way in real life as they indicated in the study. Finally, the very specific selection of the scenarios limits generalization of the findings. Other scenarios may show much wider impact of culture and personality. Nevertheless, even in these rather strict scenarios used, the influence of culture and personality was evident.

Future Research

Further research may focus on using different scenarios in which other aspects are varied to attain a deeper insight on how culture and personality influence scenario interpretation and decision behavior. Additional leadership behaviors can be tested. It would be of great interest to analyze the specific decisions people make after they choose a decision behavior. Great individual and cultural differences may occur in the specific solution or decisions an individual will make in a specific scenario. Further, greater leadership experience may lead to clearer interpretations of a scenario and a clearer knowledge of which decision behavior to choose. Finally, further research can compare the effect of the familiarity with the scenario by letting people rate scenarios which are common or uncommon to their professional background. The scenarios used in this study with

which none of the participants could conceivably have had prior leadership experience.

Conclusion

The five factors of the ‘Dynamic Five-Factor Model of Leadership’ have proven useful for measuring the effects of culture and personality on the interpretation of a scenario. The effects of culture and personality on decision behavior, though small, are mediated by the interpretation of a scenario. Leadership behavior was shown to be a result of the dynamic interaction of individual, environmental, and situational influences.

References

Andersen, J. A. (2006). Leadership, personality and effectiveness. *Journal of Socio-Economics*, *35*, 1078-1091.

Allik, J., & McCrae, R. R. (2004). Toward a geography of personality traits-Patterns of profiles across 36 culture. *Journal of Cross-Cultural Psychology*, *35*, 13-28.

Allik, J., & Realo, A. (2009). Personality and Culture. *European Journal of Personality*, *23*, 149-152.

Ashour, S. S., & England, G. (1972). Subordinate's assigned level of discretion as a function of leader's personality and situational variables. *Journal of Applied Psychology*, *56*(2), 120-123.

Bono, J. E., & Judge, T. A. (2004). Personality and transformational and transactional leadership: A meta-analysis. *Journal of Applied Psychology*, *89*(5), 901-910.

Buchanan, T., Johnson, J. S., & Goldberg, L. R. (2005). Implementing a five-factor personality inventory for use on the internet. *European Journal of Psychological Assessment*, *21*(2), 155-127.

Byrne, G. J., & Bradley, F. (2007). Culture's influence on leadership efficiency: How personal and national cultures affect leadership style. *Journal of Business Research*, *60*, 168-175.

Church, T. A., Katigbak, M.S., & Del Prado, A. M. (2010). Cultural similarities and differences in perceived affordances of situations for Big Five behaviors. *Journal of Research in Personality*, *44*(1), 78-90.

Costa, P. T., Jr., & McCrae, R. R. (1992). *Revised NEO personality inventory (NEO-PI-R) and NEO Five-Factor inventory (NEO-FFI) professional manual*. Odessa, FL: Psychological Assessment Resources.

Dhanes, V. C. (2000). The impact of personality and culture on participatory leader behaviour. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, *10*(12-B), 6403.

Dickson, M. W., Den Hartog, D. N. & Mitchelson, J. K. (2003). Research on leadership in a cross-cultural context: Making progress, and raising new questions. *The Leadership Quarterly*, *15*, 729-768.

Dorfman, P.W., Howell, J.P., Hibino, S., Lee, J.K., Tate, U., & Bautista, A. (1997). Leadership in Western and Asian countries: commonalities and differences in effective leadership processes across cultures. *The Leadership Quarterly*, *8* (3), 233–274.

Field, R. H. G., Read, P. C., & Louviere, J. J. (1990). The effect of situation attributes on decision method of choice in the Vroom-Jago model of participation in decision making. *The Leadership Quarterly, 1*(3), 165-176.

Geletkanycz, M. A. (1997). The salience of 'Cultures Consequences': The effects of cultural values on top executives commitment to the status quo. *Strategic Management Journal*, *18*(8), 615-634.

Heller, F. A., & Yukl, G. (1969). Participation, managerial decision-making, and situational variables. *Organizational Behavior and Human Performance, 4,* 277-241.

Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Thousand Oaks, CA: Sage.

Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations* (2nd ed.). Thousand Oaks, CA: Sage.

Hofstede, G. (2006). What did GLOBE really measure? Researchers' minds versus respondents' minds. *Journal of International Business Studies, 37,* 882-896.

Hofstede, G., & McCrae, R. R. (2004). Personality and culture revisited: Linking traits and dimensions of culture. *Cross-Cultural Research, 38,* 52-88.

Hogan, R., Harkness, A. R., & Lubinski, D. (2000). Personality and individual differences. In K. Pawlik & M. R. Rosenzweig (Eds.), *International Handbook of Psychology* (pp.283-304). London, GB: Sage.

House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. (2004). *Culture, leadership and organizations: The GLOBE study of 62 societies*. Thousand Oaks, CA: Sage.

Judge, T. A., & Bono, J. E. (2000). Five-factor model of personality and transformational leadership. *Journal of Applied Psychology, 85*(5), 1751-765.

Jago , A. G., Reber, G., Böhnisch, W., Maczynski, J., Zavrel, J., & Dudorkin, J. (1993). *Culture's consequences? A seven nation study of participation*. Paper presented at the Proceedings of the 24th annual meeting of the Decision Science Institute, Washington, DC.

Kaushal, R., & Kwantes, C. T. (2006). The role of culture and personality in choice of conflict management strategy. *International Journal of Intercultural Relations*, *60*, 579-603.

Kanungo, R. N., & Jaeger, A. M. (1990). Introduction: The need for indigenous management in developing countries. In A. M. Jaeger & R. N. Kanungo (Eds), *Management in developing countries* (pp. 1-23). London, GB: Routledge.

Kanungo, R. N., Aycan, Z., & Sinha, J. B. P (1999). Organizational culture and human resource management practices: The model of culture fit. *Journal of Cross-Cultural Psychology*, *30*(4), 501-526.

Leana, C. E. (1986). Predictors and consequences of delegation. *Academy of Management Journal*, *29*(4), 754-774.

Lim, B., & Polyhart, R. E. (2005). Transformational leadership: Relations to the five-factor model and team performance. *Journal of Applied Psychology*, *89*, 610-621.

McCrae, R. R., Terracciano, A., & 78 Members of the Personality Profiles of Cultures Project (2005). Universal features of personality traits from the observer's perspective: Data from 50 cultures. *Journal of Personality and Social Psychology*, *88*(3), 547-561.

McCrae, R. R., Terracciano, A., Realo, A., & Allik, J. (2006). Interpreting GLOBE societal practice scales. *Journal of Cross-Cultural Psychology, 39*(6), 805-810.

Moss, S. A., & Ngu, S. (2006). The relationship between personality and leadership preferences. *Current Research In Social Psychology*, *11*(6), 70-91.

Oishi, S., & Roth, D. P. (2009). The role of self-reports in culture and personality research: It is too early to give up on self-reports. *Journal on Research in Personality*, *43*, 107-109.

Pfister, A. C., Seiler, S., & Jonas, K. (2011). *Predicting decision behavior: Understanding the interaction between scenario structure and scenario interpretation*. Unpublished manuscript.

Polyhart, R. B., Lim, B. C. & Chan, K. Y. (2001). Exploring relations between typical and maximum performance ratings and the five factor model of personality. *Personal Psychology, 54*, 809-843.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*(3), 879-891.

Reber, G., Jago, A. G., & Böhnisch, W. (1993). Interkulturelle Unterschiede im Führungsverhalten [Intercultural differences in leadership behavior]. In M. Haller, K. Bleicher, E. Brauchlin, H. J. Pleitner, R. Wunderer, & A. Zünd (Eds.), *Globalisierung der Wirtschaft: Einwirkungen auf die Betriebswirtschaftslehre* (pp. 217-241). Bern, Switzerland: Verlag Paul Haupt.

Reynolds, B., & Karraker, K. (2008). A big five model of disposition and situation interaction: Why a "helpful" person may not always behave helpfully. *New Ideas in Psychology*, *21*, 1-13.

Sagie, A., & Aycan, Z. (2003). A cross-cultural analysis of participative decision-making in organizations. *Human Relations*, *56*(4), 453-473.

Schmitt, D. P, Realo, A., Voracek, M., & Allik, J. (2008). Why can't a man be more like a woman? Sex differences in Big Five personality traits across 55 cultures. *Journal of Personality and Social Psychology*, *94*(1), 168-182.

Seiler, S., & Pfister, A. C. (2009). Why did I do this? Understanding leadership behavior based on the dynamic five-factor model of leadership. *Journal of Leadership Studies*, *3*, 41-52.

Seiler, S., Pfister, A. C., & Ooi, Y. P. (2010). *The dynamic five factor model of leadership: An empirical validation of a holistic leadership model*. Unpublished manuscript. Shao, L., & Webber, S. (2004). A cross-cultural test of the 'five-factor model of personality and transformational leadership'. *Journal of Business Research*, *59*, 936-944.

Silversthorne, C. (2001). Leadership effectiveness and personality: A cross cultural evaluation. *Personality and Individual Differences*, *3*0, 303-309.

Ten Berge, M. A., & De Raad, B. (2002). The structure of situations from a personality perspective. *European Journal of Personality*, *16*, 81-102.

Tett, R. P., & Jackson, D. N. (1990). Organization and personality correlates of participative behaviours using an in-basket exercise. *Journal of Occupational Psychology, 63*, 175-188.

Triandis, H. C., & Suh, E. M. (2002). Cultural influences on personality. *Annual Review of Psychology*, *53*, 133-160.

Vinkenburg, C. J., Koopman, P. L., & Jansen, P. G. W. (2001). Managerial behavior and decision making; personal and situational factors. In C.M. Altwood & M. Selart (Eds.), *Decision making: Social and creative dimensions* (pp. 211–238). Dordrecht, NL: Kluwer Academic Publishers.

Vroom, V. H., & Jago, A. G. (1988). *The new leadership: Managing participation in organizations*. Englewood Cliffs, NJ: Prentice-Hall.

Vroom, V. H., & Yetton, P. W. (1973). *Leadership and decision making*. Pittsburgh, PA: University Pittsburgh Press.

Walumbwa, F. O., Lawler, J. J., & Avolio, B. J. (2007). Leadership, individual differences, and work-related attitudes: a cross-culture investigation, *Applied Psychology: An International Review*, *56*(2), 212-230.

Yukl, G. (2010). *Leadership in organizations* (7th ed.). Upper Saddle River, NJ: Prentice-Hall.

Yukl, G., & Fu, P. P. (1999). Determinants of delegation and consultation by managers. *Journal of Organizational Behavior*, *20*(2), 219-232.

Table 1

Demographics of the 10 Country Samples Used in the Analysis

			Sex		Leadership Experience	
Country	*n*	Age	Male	Female	Yes	No
Canada	80	22.04 (2.61)	59 (73.8%)	21 (26.3%)	79 (98.9%)	1 (1.3%)
China	159	25.79 (6.25)	48 (30.2%)	111 (69.8%)	105 (66.0%)	54 (34.0%)
France	87	29.16 (6.40)	35 (40.2%)	52 (59.8%)	51 (58.6%)	36 (41.4%)
Lebanon	79	29.45 (1.81)	29 (36.7%)	50 (63.3%)	50 (63.3%)	29 (36.7%)
New Zealand	55	34.31 (11.45)	36 (65.5%)	19 (34.5%)	49 (89.1%)	6 (10.9%)
Poland	236	27.19 (3.56)	87 (36.9%)	149 (63.1%)	78 (33.1%)	158 (66.9%)
Russia	76	28.76 (3.86)	21 (27.6%)	55 (72.4%)	40 (52.6%)	36 (47.4%)
Switzerland	119	31.79 (10.30)	63 (52.9%)	56 (47.1%)	65 (54.6%)	54 (45.4%)
Thailand	93	26.32 (3.17)	66 (71.0%)	27 (22.0%)	61 (65.6%)	32 (34.4%)
USA	216	25.56 (3.39)	162 (75.0%)	54 (25.0%)	191 (88.4%)	25 (11.6%)
TOTAL	1200	27.5 (6.50)	606 (50.5%)	594 (49.5%)	769 (64.1%)	431 (35.9%)

Table 2

Means, Standard Deviations, and Imtercorrelations Among the Five Factors, the Personality Factors , the GLOBE Culture Dimensions, and the Decision Behaviors

	MEAN	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. IC	4.01	.64	-																		
2. G	3.78	.53	.53**	-																	
3. O	3.59	.55	.36**	.36**	-																
4. C	3.57	.60	.34**	.40**	.62**	-															
5. IS	3.95	.61	.50**	.46**	.44**	.52**	-														
6. EX	3.35	.67	.12**	.10**	.11**	.13**	.10**	-													
7. AG	3.74	.58	.16**	.14**	.10**	.10**	.16**	.14**	-												
8. CS	3.55	.60	.16**	.10**	.10**	.13**	.13**	.22**	.32**	-											
9. NE	2.45	.70	-.10**	-.06*	-.04	-.08**	-.07*	-.29**	-.32**	-.49**	-										
10. OE	3.45	.74	.07*	.12**	.05	.02	.08**	.17**	.23**	.05	-.01	-									
11. UnA	4.26	.94	-.01	.00	.03	.00	.02	.04	.10**	.16**	-.16**	-.05	-								
12. FuO	4.10	.99	-.01	.02	.03	-.03	-.03	.06*	.09**	.16**	-.10**	-.03	.43**	-							
13. PoD	4.86	.97	.16**	.14**	.03	.05	.11**	-.01	-.05	-.05	.12**	.10**	-.25**	-.32**	-						
14. InC	4..37	.90	.01	.04	.01	-.09**	.00	-.08**	-.02	-.08**	.12**	.02	.08**	.04	.16**	-					
15. HuO	4.10	.96	.07*	.03	.01	-.01	.06*	.04	.20**	.13**	-.17**	.04	.09**	.06	-.16**	.10**	-				
16. PeO	4.43	.95	.05	.04	.07*	-.03	.04	.09**	.17**	.18**	-.18**	-.02	.37**	.38**	-.28**	.07*	.26**	-			
17. SoC	4.65	1.05	.07*	.07*	.01	-.02	.08**	-.07*	.05	-.05	.12**	.12**	-.23**	-.23**	.42**	.29**	.20**	-.03	-		

Table 2 *(continued 1)*

	MEAN	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
18. GeE	3.71	.81	-.06*	-.05	-.04	-.06	-.03	.09**	.04	.02	-.08*	-.02	.07*	.16**	-.33	-.20**	-.04	.06*	-.31**	-	
19. AsS	4.31	.89	.05	.05	.06	.07*	.08**	.05	.11**	.10**	-.04	-.02	.08**	.10**	.02	-.05	.00	.22**	0.0	-.05	-
20. DA[a]	3.35	.69	.35**	.10**	.11**	.16**	.13**	.03	-.03	.05	-.08**	-.01	-.01	-.09*	0.06	-.06*	.01	-.01	-.01	-.01	-.01
21. CO[a]	3.73	.59	.40**	.40**	.29**	.26**	.30**	.12**	.11**	.10**	-.08**	.13**	-.02	-.07	.08**	-.01	.08**	.04	.08**	-.02	.02
22. JD[a]	3.53	.59	.22**	.43**	.34**	.23**	.26**	.07*	.09**	.01	.07*	.07*	-.06*	-.03	.08**	.06*	.01	.02	.10**	-.09**	.10**
23. DE[a]	2.35	.78	-.02**	.02	.07**	.04*	-.12**	.01	-.14**	-.13**	.11**	-.15**	-.02	-.04	-.06	-.01	-.05	-.02	-.05	-.04	-.01
24. IGW[a]	1.40	.96	-.37**	-.24**	-.07*	-.03	-.31**	-.06*	-.22**	-.19**	.15**	-.18**	-.06*	-.04	-.16**	-0.1	-.06*	-.12**	-.14**	.02	-.08**
25. Auto[a]	3.54	.55	.44**	.28**	.23**	.24**	.25**	.09**	.04	.09**	-.09**	.07*	-.02	-.09**	.08**	-.05	.05	-.02	.04	-.01	.00
26. Parti[a]	2.94	.55	-.01	.25**	.25**	.17**	.05	.04	-.05	-.09**	.11**	-.07*	-.05	-.05	.00	.02	-0	-.01	.02	-.08**	.05
27. DA[b]	2.44	1.64	.14**	-.12**	-.07*	.00	.02	-.02	-.04	.04	-.10**	-.02	.02	-.05	.06	-.04	.02	.00	.04	-.02	-.01
28. CO[b]	3.20	1.68	.05	.04	.00	.04	.01	.09**	.06*	.04	-.04	.09**	.00	.02	-.03	-.01	.05	.01	-.05	.09**	-.02
29. JD[b]	2.74	1.68	-.09**	.10**	.07**	.00	.01	-.08**	.01	-.08**	.17**	-.02	-.04	.01	.02	.07*	-.06	-.02	.05	-.07*	.04
30. DE[b]	0.67	.082	-.15**	-.03	.00	-.08**	-.06*	.02	-.06*	-.02	.03	-.10**	.06*	.07*	-.10**	-.04	-.03	.04	-.09**	.00	-.01
31. IGW[b]	0.03	.18	-.06	-.05	.00	-.02	-.07*	.01	-.07*	.00	-.02	-.03	.00	.00	-.01	-.04	-.06	-.03	-.02	-.01	-.01
32. Indep	2.2	.39	-.21**	.08**	.07*	-.04	-.04	-.02	-.02	-.07*	.12**	-0.1	.00	.05	-.06*	.02	-.05	.00	-.03	-.02	.01

Table 2 *(continued 2)*

	MEAN	SD	20	21	22	23	24	25	26	27	28	29	30	31
20. DA[a]	3.35	.69	-											
21. CO[a]	3.73	.59	.49**	-										
22. JD[a]	3.53	.59	-.04	.42**	-									
23. DE[a]	2.35	.78	.01	-.03	.28**	-								
24. IGW[a]	1.40	.69	-.01	-.21**	-.05	.50**	-							
25. Auto[a]	3.54	.55	.88**	.83**	.20**	-0	-.12**	-						
26. Parti[a]	2.94	.55	-.01	.20**	.73**	.86**	.33**	.10**	-					
27. DA[b]	2.44	1.64	.50**	-.02	-.36**	-.17**	-.09**	.30**	-.31**	-				
28. CO[b]	3.20	1.68	-0	.35**	-.06	-.14**	-.05	.18**	-.13**	-.40**	-			
29. JD[b]	2.74	1.68	-39**	-.20**	.42**	.10**	.04	-.35**	.29**	-.50**	-.47**	-		
30. DE[b]	0.57	.82	-.18**	-.24**	.02	.40**	.13**	-.24**	.28**	-.18**	-.27**	-.07*	-	
31. IGW[b]	0.03	.18	.03	-.04	-.02	.10**	.18**	-.01	.06*	.04	-.10**	.08***	.09*-	-
32. Indep	2.18	.39	-.51**	-.22**	.35**	.34**	.18**	-.41**	.43**	-.79**	-.19**	.66**	.54**	.13**

Note. *N*=1200. Individual Competence (IC), Group (G), Organization (O), Context (C), Situation (S), Extraversion (EX), Agreeableness (AG), Conscientiousness (CS), Neuroticism (NE), Openness to Experience (OE), Uncertainty Avoidance (UnA), Future Orientation (FuO), Power Distance (PoD), In-Group Collectivism (InC), Humane Orientation (HuO), Performance Orientation (PeO), Societal Collectivism (SoC), Gender Egalitarianism (GeE), Assertiveness (AsS), Decision Alone (DA), Consultation (CO), Joint Decision (JD), Delegation (DE), Ignore/Wait (IGW), Independence of Choice (Indep). Adequacy Ratings ([a]), Frequency of Choice ([b]). $p<.05$ (*), $p<.01$ (**).

Table 3

Multiple Linear Regression Analysis: Own Culture Predicting Personality

	Personality									
Culture Dimension	Extraversion		Agreeableness		Conscientiousness		Neuroticism		Open. Experience	
Uncert. Avoid.	.01	(0.27)	.06	(1.76)	.04	(1.18)	-.06*	(-1.96)	.00	(0.03)
Futur Orient.	.03	(0.85)	.01	(0.24)	.11***	(3.30)	-.03	(-0.94)	-.01	(-0.19)
Power Dist.	.09**	(2.44)	.03	(0.82)	.06	(1.77)	-.04	(-1.12)	.07*	(2.12)
In-Group Collec.	-.08**	(-2.71)	-.04	(-1.44)	-.11***	(-3.70)	.12***	(4.24)	-.01	(-0.29)
Humane Orient.	.06	(1.80)	.18***	(5.82)	.09**	(3.09)	-.13***	(-4.33)	.05	(1.51)
Perform.Orient.	.07	(1.89)	.09**	(2.68)	.10**	(3.03)	-.12***	(-3.79)	.01	(0.30)
Societal Collect.	-.06	(-1.77)	.04	(1.23)	-.02	(0.49)	.06	(1.78)	.07*	(2.23)
Gender Egal.	.08*	(2.64)	.05	(1.64)	.00	(0.11)	-.05	(-1.80)	.03	(0.88)
Assertiv.	.01	(0.49)	.07*	(2.52)	.05	(1.88)	.00	(-0.12)	-.04	(-1.19)
$F(9)$	2.44**		10.71***		8.70***		9.68***		3.86***	
R^2	.02		.07		.06		.07		.03	
Adj. R^2	.01		.06		.05		.06		.02	

Note. N = 1200. Standard regression weights (β) and in parentheses the according t-values. *p<.05, **p<.01, ***p<.001.

Table 4

Multiple Linear Regression Analysis: Culture Predicting Mean Interpretation of a Scenario

Cultur Dimension	Interpretation of a Scenario									
	Indiv. Comp.		Group		Organization		Context		Situation	
Uncert. Avoid.	.00	(.0.01)	.01	(0.20)	.01	(0.29)	.04	(1.01)	.06	(1.63)
Futur Orient.	.02	(0.53)	.04	(1.25)	.02	(0.45)	-.01	(-0.35)	-.03	(-0.99)
Power Dist.	.22***	(6.32)	.18***	(4.99)	.04	(1.22)	.07*	(2.10)	.14***	(3.90)
In-Group Collec.	-.03	(-1.09)	.00	(0.14)	.00	(-0.14)	-.10**	(-3.19)	-.03	(-1.08)
Humane Orient.	.09**	(2.88)	.04	(1.39)	-.01	(-0.27)	.01	(0.45)	.06*	(1.91)
Perform.Orient.	.07*	(2.09)	.06	(1.64)	.07*	(1.96)	-.04	(-1.11)	.04	(1.30)
Societal Collect.	-.03	(-0.84)	-.01	(-0.21)	-.01	(-0.28)	-.01	(-0.25)	.03	(0.88)
Gender Egal.	-.01	(-0.30)	.01	(0.16)	-.04	(-1.13)	.01	(0.29)	.02	(0.53)
Assertiv.	.03	(0.83)	.02	(0.62)	.03	(1.09)	.07*	(2.42)	.07*	(2.20)
$F(9)$	6.16***		3.84***		1.28		2.67***		4.16***	
R^2	.04		.03		.01		.02		.03	
Adj. R^2	.04		.02		.00		.01		.02	

Note. N = 1200. Standard regression weights (β) and in parentheses the according t-values. *p<.05, **p<.01, ***p<.001.

Table 5

Multiple Linear Regression Analysis: Personality Predicting Mean Interpretation of a Scenario

	Interpretation of a Scenario									
Personality Factor	Indiv. Comp.		Group		Organization		Context		Situation	
Extra.	.08**	(2.58)	.05	(1.73)	.10**	(3.08)	.11***	(3.49)	.07*	(2.20)
Agree.	.10***	(3.11)	.10**	(3.07)	.08*	(2.32)	.09**	(2.63)	.11***	(3.44)
Consc.	.10**	(2.97)	.04	(1.25)	.07*	(2.12)	.09**	(2.62)	.09**	(2.65)
Neurot.	-.01	(-0.24)	.00	(0.07)	.05	(1.36)	.03	(0.94)	.03	(0.75)
Open. Exp.	.01	(0.22)	.07*	(2.17)	.02	(0.64)	-.01	(-0.17)	.02	(0.54)
$F(5)$	9.47***		6.50***		5.54***		7.49***		7.71***	
R^2	.04		.03		.02		.03		.03	
Adj. R^2	.03		.02		.02		.03		.03	

Note. N = 1200. Standard regression weights (β) and in parentheses the according t-values. *p<.05, **p<.01, ***p<.001.

Table 6

Multiple Linear Regression Analysis: Scenario Interpretation Predicting Adequacy of Decision Behavior

	Adequacy of Decision Behaviors										Aggreg. Decision Behaviors			
Factor	Own Dec.		Consult.		Joint Dec.		Deleg.		Ign./Wait		Autocrat.		Particip.	
Indiv. Comp.	.44***	(13.00)	.24***	(7.57)	-.04	(-1.22)	-.25***	(-7.06)	-.28***	(-8.42)	.41***	(.12.52)	-.19***	(-5.71)
Group	-.13***	(-3.63)	.21***	(6.25)	.34***	(9.95)	.13***	(3.40)	-.08*	(-2.22)	.03	(1.01)	.27***	(7.55)
Organization	.00	(0.06)	.05	(1.32)	.14***	(4.00)	.13***	(3.41)	.07*	(1.96)	.03	(0.74)	.17***	(4.52)
Context	.08**	(0.08)	.04	(0.99)	-.01	(-0.25)	.08*	(2.09)	.18***	(5.09)	.07	(1.92)	.05	(1.44)
Situation	-.06	(-0.06)	.05	(1.47)	.06	(1.83)	-.14***	(-3.96)	-.26***	(-7.61)	-.01	(-0.31)	-.07*	(-1.95)
F (5)	41.55***		67.31***		58.92***		20.65***		53.14***		63.19***		31.76***	
R^2	.15		.22		.20		.08		.18		.21		.12	
Adj. R^2	.14		.22		.19		.07		.18		.21		.11	

Note. N = 1200. Standard regression weights (β) and in parentheses the according *t*-values. *p<.05, **p<.01, ***p<.001.

Table 7

Multiple Linear Regression Analysis: Own Culture Predicting Adequacy of Decision Behavior

	Adequacy of Decision Behaviors										Aggreg. Decision Behaviors			
Cultur Dimension	Own Dec.		Consult.		Joint Dec.		Deleg.		Ign./Wait		Autocrat.		Particip.	
Uncert. Avoid	0.03	(0.89)	.02	(0.43)	-.05	(-1.55)	-.01	(-0.38)	-.07*	(-2.14)	.03	(0.80)	-.04	(-1.14)
Futur Orient.	-.07*	(-2.15)	-.06	(-1.68)	-.01	(-0.25)	-.05	(-1.45)	-.03	(-0.94)	-.08*	(-2.26)	-.04	(-1.17)
Power Dist.	.08*	(2.23)	.09**	(2.65)	.03	(0.70)	-.10**	(-2.90)	-.21***	(-6.23)	.10**	(2.83)	-.06	(-1.73)
In-Gr. Collec.	-.08*	(-2.42)	-.04	(-1.30)	.05	(1.54)	.01	(0.15)	.01	(0.33)	-.07*	(-2.22)	.03	(0.86)
Hum. Orient.	.02	(0.74)	.08*	(2.40)	.01	(0.26)	-.05	(-1.49)	-.04	(-1.17)	.06	(1.77)	-.03	(-0.90)
Perform.Orient.	-.01	(-0.19)	.02	(0.62)	.03	(1.00)	-.01	(-0.15)	-.11***	(-3.32)	.01	(0.22)	.02	(0.44)
Societal Collect.	-.01	(-0.38)	.04	(1.19)	.04	(1.08)	-.05	(-1.36)	-.09**	(-2.64)	.01	(0.41)	-.02	(-0.36)
Gender Egal.	.01	(0.30)	.05	(1.48)	-.04	(-1.31)	-.07*	(-2.15)	-.05	(-1.69)	.03	(0.99)	-.07*	(-2.29)
Assertiv.	.00	(-0.06)	.02	(0.70)	.08**	(2.79)	.00	(-0.12)	-.04	(-1.36)	.01	(0.34)	.04	(1.33)
$F(9)$	2.15*		2.85**		2.93**		2.11*		9.87***		2.84**		1.43	
R^2	.02		.02		.02		.02		.07		.02		.01	
Adj. R^2	.01		.01		.02		.01		.06		.01		.00	

Note. N = 1200. Standard regression weights (β) and in parentheses the according t-values. *p<.05, **p<.01, ***p<.001.

Table 8

Multiple Linear Regression Analysis: Personality Predicting Adequacy of Decision Behavior

	Adequacy of Decision Behaviors										Aggreg. Decision Behaviors			
Personality Factor	Own Dec.		Consult.		Joint Dec.		Deleg.		Ign./Wait		Autocrat.		Particip.	
Extra.	.02	(0.61)	.08*	(2.55)	.07*	(2.42)	.08**	(2.63)	.03	(1.04)	.05	(1.76)	.10***	(3.19)
Agree.	-.04	(-1.30)	.07*	(2.07)	.11***	(3.38)	-.04	(-1.36)	-.10**	(-3.18)	.01	(0.30)	.03	(0.86)
Consc.	.03	(0.90)	.04	(1.32)	.00	(0.04)	-.09*	(-2.88)	-.11***	(-3.53)	.04	(1.28)	-.07*	(-1.98)
Neurot.	-.05	(-1.50)	.01	(0.23)	.12***	(3.36)	.07*	(2.03)	.10**	(2.77)	-.03	(-0.82)	.11***	(3.23)
Open Ex.	.02	(0.59)	.11***	(3.70)	.02	(0.60)	-.14***	(-4.54)	-.14***	(-4.71)	.07*	(2.36)	-.09**	(-2.86)
F(5)	1.3		8.29***		4.85***		10.73***		19.34***		3.79**		6.34***	
R^2	.01		.03		.02		.04		.07		.02		.03	
Adj. R^2	.00		.03		.02		.04		.06		.01		.02	

Note. N = 1200. Standard regression weights (β) and in parentheses the according t-values. *p<.05, **p<.01, ***p<.001.

Table 9

Multiple Linear Regression Analysis: Scenario Interpretation Predicting Frequency of Decision Behavior

	Adequacy of Decision Behaviors											
Factor	Own Dec.		Consult.		Joint Dec.		Deleg.		Ign./Wait		Independence	
Indiv. Comp.	.29***	(8.22)	.05	(1.23)	-.22***	(-6.23)	-.19***	(-5.24)	-.02	(-0.54)	-.35***	(-10.20)
Group	-.25***	(-6.67)	.05	(1.21)	.17***	(4.63)	.04	(1.12)	-.02	(-0.45)	.22***	(5.97)
Organization	-.06	(-1.44)	-.07	(-1.72)	.07	(1.79)	.09*	(2.26)	.04	(1.04)	.12**	(3.08)
Context	.03	(0.75)	.06	(1.60)	-.05	(-1.18)	-.09*	(-2.38)	.00	(-0.03)	-.08*	(-2.15)
Situation	.00	(-0.02)	-.04	(-1.07)	.03	(0.93)	.03	(0.74)	-.06	(-1.61)	.02	(0.57)
F (5)	19.00***		1.5		10.94***		7.81***		1.19		26.40***	
R^2	.07		.01		.04		.03		.01		.10	
Adj. R^2	.07		.00		.04		.03		.00		.10	

Note. *N* = 1200. Standard regression weights (β) and in parentheses the according *t*-values. *p<.05, **p<.01, ***p<.001.

Table 10

Multiple Linear Regression Analysis: Own Culture Predicting Frequency of Decision Behavior

	Adequacy of Decision Behaviors											
Culture Dimension	Own Dec.		Consult.		Joint Dec.		Deleg.		Ign./Wait		Independence	
Uncert. Avoid	.05	(1.34)	-.02	(-0.61)	-.04	(-1.19)	.03	(0.89)	.00	(-0.04)	-.02	(-0.62)
Futur Orient.	-.04	(-1.28)	.01	(0.27)	.02	(0.67)	.02	(0.71)	.01	(0.42)	.04	(1.19)
Power Dist.	.06	(1.76)	.04	(1.07)	-.05	(-1.46)	-.09*	(-2.49)	-.02	(-0.66)	-.10**	(-2.83)
In-Gr. Collec.	-.07*	(-2.33)	.01	(0.35)	.08**	(2.61)	-.03	(-0.92)	-.05	(-1.65)	.05	(1.56)
Hum. Orient.	.01	(0.21)	07*	(2.10)	-.06	(-1.95)	-.02	(-0.78)	-.06	(-1.84)	-.04	(-1.23)
Perform.Orient.	.01	(0.30)	.00	(0.03)	-.01	(-0.33)	.01	(0.38)	-.03	(-0.87)	-.02	(-0.46)
Societal Collect.	.05	(1.39)	-.06	(-1.61)	.03	(0.85)	-.05	(-1.42)	.03	(0.70)	-.03	(-0.75)
Gender Egal.	-.01	(-0.17)	.09**	(2.87)	-.06	(-1.88)	-.05	(-1.69)	-.03	(-0.94)	-.05	(-1.55)
Assertiv.	.00	(-0.03)	-.02	(-0.66)	. .03	(1.13)	-.03	(-0.89)	.00	(0.00)	.01	(0.17)
$F(9)$	1.71		1.86		2.17*		2.64**		0.99		1.94*	
R^2	.01		.01		.02		.02		.01		.01	
Adj. R^2	.01		.01		.01		.01		.00		.01	

Note. N = 1200. Standard regression weights (β) and in parentheses the according t-values. *p<.05, **p<.01, ***p<.001.

Table 11

Multiple Linear Regression Analysis: Personality Predicting Frequency of Decision Behavior

	Adequacy of Decision Behaviors											
Personality Factor	Own Dec.		Consult.		Joint Dec.		Deleg.		Ign./Wait		Independence	
Extra.	-0.05	(-1.61)	.07	(2.22)	-.05	(-1.53)	.05	(1.58)	.02	(0.59)	.03	(0.83)
Agree.	-.07*	(-2.15)	.04	(1.29)	.05	(1.61)	-.04	(-1.19)	-.05	(-1.62)	.03	(0.92)
Consc.	0.02	(0.59)	.01	(0.41)	-.03	(-0.99)	.00	(-0.09)	.01	(0.19)	-.03	(-0.83)
Neurot.	-.12***	(-3.41)	.03	(0.80)	.09*	(2.51)	.01	(0.22)	-.02	(-0.48)	.10**	(2.79)
Open Ex.	0.03	(0.82)	.08*	(2.50)	-.04	(-1.41)	-.12***	(-3.79)	.01	(0.21)	-.09**	(-2.94)
F (5)	3.24**		3.59**		3.76**		3.93**		0.61		3.93**	
R^2	.01		.02		.02		.02		.00		.02	
Adj. R^2	.01		.01		.01		.01		.00		.01	

Note. N = 1200. Standard regression weights (β) and in parentheses the according *t*-values. *p<.05, **p<.01, ***p<.001.

6

General Discussion

This chapter provides a summary of the main results of the four studies, a general discussion of the findings, an overview of the strengths and limitations of the empirical studies, practical implications, and, finally, a short conclusion.

Summary of the Main Results of this Dissertation Project

The aim of this dissertation project was to develop, test, and apply a new holistic leadership model, in which the important sources of influence on leadership behavior are integrated together. The literature review revealed that five different sources of influence on leadership behavior were the basis of the traditional and contemporary leadership models. The models focused either on one or a combination of these five factors to explain leadership behavior. To date, however, no model incorporated all five factors at once.

The factors identified in the ‘Dynamic Five-Factor Model of Leadership’ (Chapter 2) are: (1) the individual leader and his or her competences, (2) the group with which the leader is working, (3) the organization in which they are working, (4) the context in which they are embedded, and (5) the immediate situation with which they are confronted. The importance of each factor for leadership behavior was explained, possible components and measurement of each factor were discussed, and the scenario approach was introduced, focusing on the development of these five factors over time as a person moves from one leadership situation into another.

In Chapter 3 the ’Dynamic Five-Factor Model of Leadership’ was put to the test in two independent studies. We found that a measurement based on the proposed model produces valid, reliable, and reproducible results. Each scenario

had its distinct combination of the perceived influence of the five factors. These findings underline that leadership is systematically influenced by the proposed factors of the ‘Dynamic Five-Factor Model of Leadership’. The perceived impact of these five factors can be measured for a wide range of leadership scenarios as suggested in Chapter 2. Further analysis revealed, that the perceived impact of the five factors was systematically influenced by the structure of a scenario, i.e. the three variables time pressure, danger, and formalization. The systematic way with which the three variables exert their influence was congruent with many earlier findings in the leadership literature. Additionally, the measurement was sensitive to changes in the structure of a scenario but produced stable results when a scenario remained the same in Study 1 and Study 2.

In Chapter 4 it was shown that the five factors of the ‘Dynamic Five-Factor Model of Leadership’ could be used as systematic predictors for three out of four decision behaviors proposed by Yukl (2010). Although ‘consultation’ was the most chosen decision behavior and the one with the highest adequacy ratings, the five factors did not systematically predict this decision behavior. Additionally, the five factors mediated the effects of the structure of a scenario, manipulated with the three variables time pressure, danger, and formalization, on decision behavior. Although these three variables were shown to influence decision behavior directly in earlier research (Field, Read, & Louviere, 1990; Vroom & Jago, 1988; Vroom & Yetton, 1973, Yukl & Fu, 1999), the five factors were the better predictors for decision behavior. We argued that the perceived impact of the five factors is a result of an interpretation process. The five factors can therefore be used as a measurement for the interpretation of a scenario. Hence, the interpretation of a

scenario was most important for decision behavior and not a set of single directly-measurable variables that constitute the structure of a scenario. This is a new and important finding, as it underlines the importance of the individual interpretation of a scenario for leadership behavior.

In Chapter 5 we showed by means of a global online study with over 1400 participants that both culture and personality were systematic predictors for the interpretation of a scenario, i.e. the perceived impact of the five factors. But the effects of both culture and personality on the interpretation of a scenario were small. In addition, the nine GLOBE dimensions are predictors for the 'Big Five' personality factors when measured on an individual level. Further analysis revealed that personality partially mediated the effects of culture on the interpretation of a scenario. The interpretation of a scenario was the main predictor for decision behavior. Both culture and personality also had systematic effects on decision behavior, although these were small. Further analysis revealed that the influence of culture and personality were mediated by the interpretation of the scenario. These are new and important findings as earlier research suffered from a lack of a common taxonomy for scenarios with which the interpretation of many different scenarios might be measured (Church, Katigbak, & Del Prado, 2010; Hogan, Harkness, & Lubinski, 2000; Ten Berge & de Raad, 2002) and the process of how culture and personality influence the interpretation of a scenario and decision behavior have not yet been empirically tested.

General Discussion

The findings of this dissertation provide important contributions to leadership research. First of all it offers a new holistic approach to leadership, which takes the important sources of influence on leadership behavior into account. The 'Dynamic Five-Factor Model of Leadership' makes it possible to analyze leadership in a more general approach. Although the model may appear simplistic at first glance, it is capable of illustrating the dynamics of the five main influencing factors on leadership behavior as well as between the factors themselves. All factors are responsible for behavior at the same time but with different degrees of importance. As shown in the third study, the processes of how different variables influence leadership behavior can be analyzed, providing new insights into old leadership questions, such as what influences decision behavior. The results of this study support the findings in earlier research by Field et al. (1990), Vroom and Jago (1988), Vroom and Yetton (1973), or Yukl and Fu (1999). But using the model to analyze the processes offered new insight into which dynamic processes generate these influences on leadership behavior. As the model is applicable to a wide range of leadership scenarios, it aids in explaining leadership behavior in a specific scenario, as called for by Lord, Brown, Harvey, and Hall (2001).

The 'Dynamic Five-Factor Model of Leadership' seems to fulfill several of Kitcher's (1982) criteria for a good model. It unifies earlier research. Several earlier findings were reproduced and could be explained in the model. The criterion of fecundity is also met, as the final two studies opened up new insights into old and new leadership questions. Finally, the model can be used to generate individually-testable hypotheses. The model was used as a strategy to measure the

interpretation of a scenario. This made it possible to analyze the influence of culture and personality on the interpretation of a scenario and on decision behavior in depth.

The findings of the four studies underscore the statements made by Andersen (2006) that leadership behavior is a function of the individual and the environment or the situation. Vinkenburg, Koopman, and Jansen (2001) agreed with their view, but argued that the situation is most important for behavior. If Vinkenburg et al. meant the interpretation of the scenario, the results of the studies confirm his view, as the interpretation of a scenario was most important for leadership behavior compared with personality (an individual factor) and culture (an environmental factor).

This dissertation showed two initial applications for the model in leadership research. Apart from being used as a model for analyzing why someone behaved in a specific way as a leader, the model was also used as a method to measure the interpretation of a scenario. This application especially is a principal contribution to leadership research as, to date, no common taxonomy has existed to measure the interpretation of a scenario (Church et al., 2010; Hogan et al., 2000). Ten Berge and De Raad (2002) stated that “we should develop strategies for systematically investigating situations” (p. 81). Using the ‘Dynamic Five-Factor Model of Leadership’ as such a strategy will make it possible to further analyze the effects of culture, personality, leadership experience, charisma, or different work environments on leadership behavior. Study 4 of this dissertation demonstrated the influence of culture and personality although the measured influence was small. Further questions can be tackled, for example: Do charismatic leaders perceive the

same leadership scenario differently as non charismatic leaders? Or do experienced leaders perceive the same leadership scenario differently as non experienced leaders?

Although there are several reasons why the influence of both culture and personality on the five factors is small, the results of Study 4 support a further view of cultural influences on behavior. Reis (2008) suggested that certain objective situational features are cultural universals. These cultural universals have predictable impact on behavior in all cultures. The scenarios used in the study were manipulated using the three variables: time pressure, danger, and formalization. The small impact of culture and personality suggests that the situations were construed similarly. Hence, time pressure, danger, and formalization may be cultural universals which have a similar impact on the interpretation of a scenario. Cultural differences in behavior could result from (a) the prevalence of various situations in culture, (b) how situations are construed, and (c) the behaviors viewed as appropriate in a situation, even though a situation is construed similarly across cultures (Morling, Kitayama, & Miyamoto, 2002; Reis, 2008). For the scenarios tested, we may assume a similar construal in different cultures. The content for each scenario was selected such that each scenario had a similar prevalence in each of the cultures tested. As we did not test which specific behavior each participant would have shown in each scenario, meaning what specific solution would be chosen and executed, it is still possible that cultural differences in other leadership behaviors for these scenarios would stem from different behavior that would be viewed as appropriate.

Strengths

The studies comprising this dissertation project have a number of strengths. First of all, the model developed builds on the previous research and many of the earlier findings can be reproduced using this new model. Further, application of the model in research and leadership education is simple. In all studies, participants indicated that the difficulty to rate the scenarios was easy to medium. In addition, participants were fast in evaluating a scenario using the five factors. Furthermore, analyzing scenarios with the five factors produces stable results. Changes in a scenario lead to changes in its appraisal using the five factors. Hence, one strength is the model's sensitivity to changes and its stability in measurement when no changes are made. A further strength is that many different variables can be analyzed regarding their effect on the perception of the five factors and on leadership behavior. The five factors can be used to gain deeper insight into the processes of how specific variables influence leadership behavior, as shown in Study 3 (Chapter 4). A final strength lies in the use of the five factors as a measurement of an interpretation of a scenario. This offers a wide range of possible applications. New insights in how leadership behavior is influenced for example by culture and personality can be obtained as shown in Study 4 (Chapter 5). The model offers a holistic explanation for leadership behavior, is applicable to a wide set of scenarios, produces reliable, valid, and reproducible results, is sensitive to change, can be used to analyze different influencial processes, and offers new approaches to analyzing the societal and personal influences on scenario perception.

Limitations

The studies presented also have several limitations. A major limitation lies in the scenarios selected in each study. As the structure was manipulated only using the three variables time pressure, danger, and formalization, a wide range of other important variables were excluded from the research. Variables like organizational culture, industry, special group dynamics, special knowledge and skills of the leadership individual or group members, etc. were not included. Additionally, as already mentioned in the discussion of Study 4, manipulating the structure of a scenario with these three variables has another limiting effect: danger and time pressure increase the criticality of a scenario. As people behave more similar the more critical a scenario becomes (Polyhart, Lim, & Chan, 2001), it can be argued that this effect is based on a closer interpretation. Increasing formalization additionally fosters this similarity in interpretation, since the course of action is clearly defined through the given processes or rules. This may have led to the limited influence of personality and culture in Study 4. Hence, using alternative scenarios with manipulations to the structure other than time pressure, danger, and formalization may offer more insight into how culture and personality influence leadership behavior.

A further limitation is the selection of the leadership behavior. Only decision behavior was analyzed, not the actual decision made nor other leadership behaviors such as transformational leadership, communication, or problem solving behavior. Although decision behavior can be easily compared between different scenarios, it may also limit the insights generated. It can be argued that the effects of the scenario, the personality, or culture may be much stronger when other leadership

behaviors are measured. An additional limitation regarding the leadership behavior lies in the way they were measured. No real behavior was recorded: every response was an intention. Hence, it remains unclear whether the participants would have really behaved the way they indicated if confronted with these scenarios *in vivo*.

Finally, the samples used in all studies limit the generalizability of the results. As all participants were students, the results can be mainly applied to student populations. Although nearly half of the participants have indicated that they had previous leadership experience (e.g. MBA students, military cadets in the final year), it remains unclear which sort of leadership experience this was. Using a sample of experienced managers may reveal different results. The managers may have a much clearer idea how to decide and may have a clearer view of which factors are important in the specific scenario and which are not.

Future Research

Further research could explore a wide variety of tracs. First, the effects of many different variables on the perception of the five factors could be further analyzed, offering additional insights into how the dynamic interplay between the five factors works. Future research could investigate the effects of culture and personality on the interpretation of a scenario. Using the five factors of the 'Dynamic Five-Factor Model of Leadership' as a measurement can offer further insights, especially with scenarios which are known to be interpreted differently by dissimilar cultures or personalities. The five factors may give insight as to where this difference in interpretation lies. Finally, the effect of the five factors on other leadership behaviors than decision behavior can be analyzed. It would be, for

example, of great interest to know how the perceived importance of the five factors influences the specific solution for a problem encountered in a scenario. Do people focus primarily on the factors they see as most important in their solution? Or do they always focus on the same factors?

Practical Implications

A first practical implication was mentioned in Chapter 2: the model was used in a leadership development course. The participants had to apply the model in discussing their leadership decisions. As they indicated in a subsequent brief survey, using the model helped them to generate a more profound rationale for their decisions and helped them to consider all relevant influencing factors. Leaders could therefore use the model to quickly generate an overview of a problem encountered. Spending some thoughts on each factor may offer the chance not to leave no important source of influence unnoticed and to generate a profound argument for a decision.

The model can be used in a similar way to analyze ethical dilemmas and to generate basic argument for ethical leadership decisions. The model helps to structure such ethical problems and to analyze the different ethical implications inherent in such a dilemma by analyzing the ethical aspect for every factor. This aids in finding a good solution for an ethical problem and at the same time it may provide hints as to which compensatory behaviors should follow the moral decision.

Further practical applications may include using the model to describe the differences in the interpretation of leadership scenarios between different cultures.

If systematic differences in the importance of the five factors for the same scenario can be found in research, the model offers a compelling approach to exemplify such differences.

Conclusion

The ‘Dynamic Five-Factor Model of Leadership’ is an important addition to leadership research, as its holistic and its dynamic make it possible to reanalyze already known effects on leadership through a new lens. Additionally and more importantly, the model offers new approaches to problems yet untouched in leadership. The results of the four studies in this dissertation have shown that no single variable, factor, or dimension, nor their sum defines leadership behavior, but instead it is their dynamic interaction. Hence, leadership behavior is more than just the sum of its parts.

References

Andersen, J. A. (2006). Leadership, personality and effectiveness. *Journal of Socio-Economics*, *35*, 1078-1091.

Church, T. A., Katigbak, M. S., & del Prado, A. M. (2010). Cultural similarities and differences in perceived affordances of situations for Big Five behaviors. *Journal of Research in Personality*, *44*(1), 78-90.

Field, R. H. G., Read, P. C., & Louviere, J. J. (1990). The effect of situation attributes on decision method of choice in the Vroom-Jago model of participation in decision making. *The Leadership Quarterly*, *1*(3), 165-176.

Hogan, R., Harkness, A. R., & Lubinski, D. (2000). Personality and individual differences. In K. Pawlik & M. R. Rosenzweig (Eds.), *International Handbook of Psychology* (pp. 283-304). London: Sage.

Kitcher, P. (1982). *Abusing Science: The Case Against Creationism*. Page 45 Cambridge: The MIT Press.

Lord, R. G., Brown, D. J., Harvey, J. L., & Hall, R. J. (2001). Contextual constraints on prototype generation and their multilevel consequences for leadership perceptions. *The Leadership Quarterly*, *12*, 311 – 338.

Morling, B., Kitayama, S., & Miyamato, Y. (2002). Cultural practices emphasize influence in the United States and adjustment in Japan. *Personality and Social Psychology Bulletin*, *28*, 311–323.

Polyhart, R. B., Lim, B. C. & Chan, K. Y. (2001). Exploring relations between typical and maximum performance ratings and the five factor model of personality. *Personal Psychology, 54*, 809-843.

Reis, H. T. (2008). Reinvigorating the concept of situation in social psychology. *Personality and Social Psychology Review, 12*, 311–329.

Ten Berge, M. A., & De Raad, B. (2002). The structure of situations from a personality perspective. *European Journal of Personality, 16*, 81-102.

Vinkenburg, C. J., Koopman, P. L., & Jansen, P. G. W. (2001). Managerial behavior and decision making; personal and situational factors. In C.M. Altwood & M. Selart (Eds.), *Decision making: Social and creative dimensions* (pp. 211–238). Dordrecht, NL: Kluwer Academic Publishers.

Vroom, V. H., & Jago, A. G. (1988). *The new leadership: Managing participation in organizations*. Englewood Cliffs, NJ: Prentice-Hall.

Vroom, V. H., & Yetton, P. W. (1973). *Leadership and decision making*. Pittsburgh, PA: University Pittsburgh Press.

Yukl, G. (2010). *Leadership in Organizations* (7th ed.). Upper Saddle River, NJ: Prentice-Hall.

Yukl, G., & Fu, P. P. (1999). Determinants of delegation and consultation by managers. *Journal of Organizational Behavior*, *20*(2), 219-232.

Appendix

Appendix A: Table showing the intended Structure of the tested Leadership Scenarios in the Studies 1 to 4

Table 1

Intended Structure of the Tested Leadership Scenarios in the Studies 1 to 4

	Study					
	1, 2			3, 4		
Situation	TP	D	F	TP	D	F
1	-	-	-	-	-	+
2	-	-	+	+	-	+
3	-	+	+	-	+	+
4	+	+	+	+	+	-
5	-	+	-	+	-	-
6	+	-	-	-	+	-
7	+	-	+	-	-	-
8	+	+	-	+	+	+
9	-	-	-	+	+	-
10	-	+	+			
11	-	-	+			
12	+	+	-			
13	+	-	-			
14	-	-	-			
15	+	-	+			
16	+	+	+			
17	-	+	-			
18	-	-	+			
19	+	-	+			
20	-	+	-			
21	+	-	-			
22	+	+	+			
23	+	+	-			
24	-	+	+			

Note. TD = Time Pressure, D = Danger, F = Formalization. + = high, - = low.

Appendix B: Questionnaire for Study 1 (Chapter 3)

MILITÄRAKADEMIE AN DER ETH ZÜRICH

Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Einschätzung von Führungssituationen

Geschätzte Studierende

Wir danken Ihnen herzlich, dass Sie an der vorliegenden Untersuchung teilnehmen. Das Ziel der vorliegenden Untersuchung ist es, den Einfluss verschiedener Faktoren auf das Führungsverhalten genauer zu bestimmen. Grundsätzlich gehen wir davon aus, dass es fünf grosse Faktoren gibt, welche den Einfluss bestimmen. Diese sind:

1) die individuellen Kompetenzen der Führungsperson (z.B. Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)

2) die Gruppe (z.B. Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion der Gruppe, etc.)

3) die Organisation (z.B. Infrastruktur, organisationale Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)

4) der generelle Kontext (z.B. geltende Gesetze, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)

5) die spezifische, unmittelbar aktuelle Führungssituation (z.B. Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)

Die einzelnen Faktoren beinhalten noch eine ganze Reihe weiterer Aspekte, die hier nicht aufgelistet sind. Es geht nicht um eine vollständige Aufzählung aller möglichen Elemente pro Faktor, sondern um Hinweise, welche Bereiche zu den einzelnen Faktoren gehören.

Wir möchten untersuchen, ob sich der Einfluss der fünf Faktoren auf Ihren Führungsentscheid je nach Führungssituation ändert. Die Frage ist also, ob in der einen Führungssituation z.B. der Faktor "Gruppe" sehr wichtig ist, während in einer anderen Situation dieser Faktor weniger wichtig ist.

Ihr konkreter Auftrag:

Sie werden nachfolgend 24 kurze Beschreibungen von Führungssituationen finden. Zu jeder Führungssituation werden Ihnen die gleichen 8 Fragen gestellt. Diese können Sie jeweils anhand einer 5-stufigen Skala beantworten.

- **Bitte lesen Sie jede Situation kurz durch und beantworten Sie die nachfolgenden Fragen zur Situation. Bitte beantworten Sie die einzelnen Fragen spontan, ohne lange zu überlegen.**

- Bei der Beurteilung geht es um die **Einschätzung des Faktors insgesamt**. Daher kann es sein, dass Sie keine Informationen zu jeder Facette des Faktors in der Situationsbeschreibung finden.

- Bitte beantworten Sie die Frage nach **Ihrer persönlichen Einschätzung**. Es gibt keine richtigen oder falschen Antworten.

- Fünf Fragen beziehen sich auf die fünf Faktoren und die restlichen drei Fragen beziehen sich auf die Situation insgesamt.

- Es wird nicht nach dem zu erwarteten Führungsverhalten gefragt, sondern nach Ihrer Einschätzung, welchen Einfluss die einzelnen Faktoren auf Ihren Führungsentscheid haben.

- Es ist sehr wichtig, dass Sie alle Fragen zu allen Situationen gewissenhaft beantworten, damit wir nachher einen kompletten Überblick über alle Situationen erhalten.

- Denken Sie bitte auch daran, dass die verschiedenen Faktoren möglicherweise nicht immer alle den gleichen Einfluss ausüben.

- Am Ende finden Sie einen kurzen **demografischen Fragebogen**, sowie die Möglichkeit, uns **Ihre Rückmeldung zur Untersuchung** zu geben. Bitte füllen Sie diese ebenfalls aus. Für alle Rückmeldungen sind wir Ihnen überaus dankbar.

Die Untersuchung ist vollkommen anonym! Es lässt sich nicht anhand der Daten auf eine bestimmte Person schliessen!

Gerne stehen wir Ihnen für Fragen während und nach der Untersuchung zur Verfügung.

Herzlichen Dank für die Mitarbeit und viel Spass beim Bearbeiten der Führungssituationen!

Dr. Stefan Seiler & M.Sc. Andres Pfister

1.

Sie sind Leiter einer Spielzeugfirma und stellen Plastikfiguren her. Da sich die letzten Jahre sehr positiv für Sie ausgewirkt haben, besteht für die Firma nun die Möglichkeit, den einzigen direkten Konkurrenten zu kaufen. Sie hätten damit in Ihrem Land das Monopol für Plastikfiguren. Der Verwaltungsrat möchte, dass Sie den Konkurrenten übernehmen. Der Staat droht Ihnen, die Übernahme zu verhindern, damit die Firma keine Monopolstellung erhält. Zusätzlich könnte die Firma durch die Übernahme rund 200 Stellen einsparen, da sich grosse Bereiche der beiden Firmen überlappen. Gleichzeitig könnten Sie durch die Übernahme zu den grossen internationalen Herstellern aufschliessen. Bis in drei Wochen müssen Sie dem Konkurrenten ein erstes Angebot unterbreiten, denn auch andere internationale Firmen wären an einer Übernahme interessiert.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

2.

Sie sind als Inhaber einer grossen mittelständischen Firma Teil einer Wirtschaftsdelegation, welche unter der Leitung des Aussenministers Japan besucht. Aufgrund der Feierlichkeiten eines 20 jährigen Staatsvertrages zwischen Ihren Ländern ist die gesamte Delegation zu einem Festbankett an den kaiserlichen Hof eingeladen. Der Ablauf des Banketts wird sich nach dem strikten japanischen Hofzeremoniell richten. Da der Sprecher Ihrer Wirtschaftsdelegation unerwartet wegen einer schweren Lebensmittelvergiftung nicht am Bankett anwesend sein kann, müssen Sie im Namen der Delegation eine kurze Ansprache halten. Sie selber sind das erste Mal in Japan. Andere Delegationsteilnehmer waren schon beim 10 jährigen Jubiläum des Staatsvertrages beim Kaiser zu Besuch.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

3.

Sie sind der Leiter einer kleinen Bäckerei, welche besondere Spezialitäten der Region herstellt. Sie haben sich mit Ihren 10 Mitarbeitern in der Region und in Ihrem Land einen sehr guten Namen erarbeitet. Aufgrund der stark ansteigenden Rohstoffpreise sehen Sie sich gezwungen, sich einer grossen Bäckereivereinigung anzuschliessen. Über diese Vereinigung wäre es Ihnen wieder möglich, günstig an die notwendigen Rohstoffe zu kommen. Jedoch müssen Sie, um in die Vereinigung aufgenommen zu werden, einerseits den Namen der Bäckerei ändern, das Produktsortiment anpassen, sich an der Generalversammlung vorstellen und aufnehmen lassen und einen Teil des erwirtschafteten Gewinnes an die Vereinigung abgeben. Zudem wird die Buchhaltung zukünftig zentral von der Vereinigung übernommen. Ebenfalls werden die Produktpreise festgelegt. Ohne den Beitritt zu einer Vereinigung werden Sie mit Sicherheit in den nächsten Monaten Ihre Bäckerei schliessen müssen, da Sie nicht mehr zu konkurrenzfähigen Preisen produzieren können. Ihre engsten Mitarbeiter bitten Sie darum, nach weiteren Vereinigungen zu suchen, mit welchen man sich einig werden kann, da Sie die Voraussetzungen in diesem Fall als sehr ungünstig ansehen.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

4.

Sie sind der Leiter des Steuerungsraums in einem AKW. Zusammen mit Ihrem 3-köpfigen Team sind Sie schon viele Jahre hier tätig. Bis zum jetzigen Zeitpunkt gab es noch nie einen nennenswerten Störfall. Notabschaltungen des Reaktors werden jedoch wiederholt geübt, da diese nur in einer vorgegebenen Reihenfolge möglich ist, ohne dass es zu einer Katastrophe kommt. In den letzten Wochen hat es sehr wenig geregnet und der Fluss, dessen Wasser zur Kühlung verwendet wird, hat einen historischen Minimalpegelstand erreicht. Plötzlich treten verschiedene Warnsignale auf. Das Kühlsystem des Reaktors hat eine gravierende Fehlfunktion. Sie müssen den Reaktor sofort und korrekt runterfahren, ansonsten ist ein Reaktorunglück unvermeidlich.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

5.

Sie sind ein Teamleiter bei der örtlichen Polizei. Zusammen mit anderen Teams sind Sie für die Sicherheit bei einem örtlichen Fussballderby verantwortlich. In früheren Begegnungen gab es schon schwere Ausschreitungen zwischen den Fangruppen mit Verletzten bei den Fans und der Polizei. Sie gehören mit Ihrem Team zu den Erfahrensten hinsichtlich Fankrawallen. Die Stadionleitung, der Fussballclub und die Stadtbehörde wollen keine weiteren Ausschreitungen, da Sie sonst vom Fussballverband bestraft werden. Sie sind mit Ihrem Team, welches aus rund 15 Polizisten besteht, im Stadion postiert. Zusätzlich gibt es noch 12 weitere Teams der gleichen Grösse im Stadion. Ausserhalb des Stadions sind nochmals rund 20 Teams im Einsatz. Gegen Ende des Spiels bewerfen sich die ersten Fans der beiden Mannschaften mit Klopapierrollen. Kurz darauf fliegen die ersten Flaschen zwischen den Fanblocks und Sie sehen wie ein Zuschauer von einer Flasche am Kopf verletzt wird.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

6.

Sie sind Produktionsleiter eines grossen Fahrradherstellers. Da Sie Just-in-time produzieren, um keine Lagerkosten zu haben, sind Sie darauf angewiesen, dass alle Zulieferer die Waren rechtzeitig liefern. Falls einer ausfällt, haben Sie knapp 24 Stunden Zeit, um Ersatz zu finden. Als Sie am Morgen ins Büro fahren, hören Sie am Radio, dass bei Ihrem Bremsenhersteller für 2 Tage befristet gestreikt wird. Als Sie im Büro sind, stellen Sie fest, dass die Anzahl Bremsen im Lager nur noch für die heutige Produktion reichen. Mehrere Ihrer Mitarbeiter, welche schon früher im Büro waren, haben derweil verschiedene Lösungsmöglichkeiten erarbeitet. Aus Ihrer früheren Anstellung sind Sie ebenfalls gut mit dem Firmenleiter eines anderen Bremsenherstellers befreundet.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

7.

Sie sind Verkaufsleiter bei einem Luxusgüterhersteller und führen rund 10 Personen. Einer Ihrer Mitarbeiter hat einen sehr anspruchsvollen und sehr reichen Kunden. Dieser will, dass Sie für die Vertragsunterzeichnung mit Ihrem Mitarbeiter bis übermorgen zu Ihm reisen. Da es jedoch in Ihrer Firma grosse Probleme mit exzessiven Reisekosten gegeben hat, hat die Firma ein sehr striktes Bewilligungsverfahren eingeführt. Das Bewilligungsverfahren dauert normalerweise rund drei Tage. Sie und verschiedene andere aus Ihrem Team kennen jedoch diejenigen Personen, welche die Reise bewilligen müssen. Bis heute Abend müssen Sie die Bewilligung, die Flugtickets, sowie die weiteren Reiseunterlagen für sich und Ihren Mitarbeiter haben, ansonsten kommt das Geschäft mit dem reichen Kunden nicht zustande.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

8.

Sie sind der Leiter einer kleinen Schule in einem schwer zugänglichen Berggebiet. Zusammen mit drei anderen Lehrern betreuen Sie die Kinder der umliegenden 10 Dörfer. Seit mehreren Tagen gibt es sehr starke Regenfälle. Der Fluss ist über die Ufer getreten und bedroht die Ortschaft im Tal, wo Sie Ihre Schule haben. Mehrere Kinder konnten schon wegen Schlammlawinen nicht in ihre höher gelegenen Dörfer zurückkehren. Während Sie mit den anderen Lehrpersonen die Kinder betreuen, welche noch in der Schule sind, tritt ein Vertreter der Dorfbehörde ein und sagt Ihnen, dass Sie die Schule sofort verlassen müssen, da der weiter oben gelegene Staudamm zu brechen droht.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

9.

Sie sind der Abteilungsleiter einer grossen, international tätigen Bank. Aufgrund der globalen Hypothekenkrise muss die Bank mehrere Milliarden abschreiben. Um herauszufinden, wie es zu diesen riesigen Abschreibungen kam, ist eine interne Untersuchungskommission eingesetzt worden, welche die Geschäfte jeder Abteilung untersucht, welche involviert sein könnte. Da Sie mit Ihrer Abteilung im Bereich Risikomanagement tätig sind, haben Sie auch mit den verlustreichen Geschäften zu tun gehabt. Sie wissen jedoch von keinen Fehlern oder Unregelmässigkeiten in Ihrer Abteilung. Einige der langjährigen und guten Mitarbeitern der Abteilung wehren sich sehr stark gegen die interne Untersuchung, da die Abteilung bis jetzt nie negativ aufgefallen ist. Einige der Mitarbeiter drohen mit Kündigung, falls ihre Arbeit untersucht wird.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

10.

Sie sind der Besitzer einer kleinen Firma mit 2 Angestellten, welche qualitativ hochwertige Lautsprecher herstellt. Sie sind momentan an dem Punkt angekommen, an welchem Sie unbedingt eine zusätzliche Arbeitskraft für den externen Verkauf brauchen. Sie und Ihre beiden Angestellten sind fast vollumfänglich mit der Produktion und der Entwicklung beschäftigt sind und nur sehr wenig mit dem Verkauf. Sie brauchen momentan alle Einnahmen für die Entwicklung und die Gehälter ihrer Angestellten. Selber bezahlen Sie sich keinen Lohn aus und leben von Ihrem Ersparten. Damit Sie an weitere Finanzen kommen und die Firma entwickeln können, besteht einerseits die Möglichkeit eine Bank oder eine Wirtschaftsförderungsstiftung anzufragen. Sowohl die Bank, als auch die Stiftung verlangen von Ihnen eine genaue Auflistung der Firmenzahlen, einen Managementplan, eine Wachstumsstrategie und noch diverse andere Unterlagen. Zusätzlich müssen Sie bei der Stiftung noch mindestens zwei Vorträge vor einem Gremium halten, damit Sie finanziert werden. Die Bank verlangt keine Vorträge, jedoch sind die Konditionen bei der Stiftung wesentlich günstiger für die Weiterentwicklung der Firma. Ohne neues Kapital müssen Sie bald von der Sozialhilfe leben, da Sie sich keinen mehr Lohn auszahlen können. Auch wäre auf absehbare Zeit eine Weiterführung der Firma nicht mehr möglich.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

11.

Sie sind Leiter einer Hafenbehörde. Vor dem Hafen liegt ein Kreuzfahrtschiff, auf welchem eine hoch ansteckende Krankheit ausgebrochen ist. Die staatlichen und internationalen Vorschriften geben klar vor, dass das Schiff nicht in den Hafen einlaufen darf und wie bei einem Schiff unter Quarantäne vorgegangen werden muss. Jedoch wäre die ärztliche Versorgung des Schiffes viel einfacher und sicherer zu bewerkstelligen, wenn das Schiff im Hafen liegen würde. Ihre Kollegen raten Ihnen dringend davon ab, das Schiff einlaufen zu lassen. Die Stadtbehörde hat jedoch grosse Angst, dass die Verweigerung von schneller Hilfe sich sehr schlecht auf den Ruf der Stadt auswirkt und will das Schiff in den Hafen einlaufen lassen. Da die Stadt sehr vom Tourismus abhängig ist, könnte sich ein schlechter Ruf negativ auf den Tourismus und somit auf die Wirtschaft auswirken.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

12.

Sie werden als Leiter einer freiwilligen Dorffeuerwehr mit Ihrem Löschzug zu einem Wohnungsbrand im alten Dorfkern gerufen. Da dies nicht der erste Brand ist in diesem Jahr, bringen Sie und Ihre Mannschaft genügend Erfahrung bei der Brandbekämpfung mit. Als Sie eintreffen, wird Ihnen von einem Passant mitgeteilt, dass noch jemand in der Wohnung vom Feuer eingeschlossen ist. Zudem bemerken Sie, dass das Feuer auf das daneben stehende Fachwerkhaus übergreift. Sie haben nur zwei Löschzüge zur Verfügung und Ihnen ist klar, dass Sie den Brand unbedingt unter Kontrolle bringen müssen, bevor er sich weiter ausbreitet. Sie können andere Feuerwehren aus benachbarten Dörfern rufen, diese brauchen jedoch bis zu einer halben Stunde, bis sie am Brandort eintreffen.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

13.

Sie sind der Organisator eines kleinen Musikfestivals, welches schon seit Jahren in Ihrer Stadt stattfindet. Zusammen mit Ihrem Organisationskomitee und den Verantwortlichen der Stadt haben Sie ein hervorragendes Programm zusammengestellt. Ein grosser Teil der Tickets sind schon verkauft, die Artisten gebucht und das Festivalgelände ist fast fertig aufgebaut. In zwei Tagen wird das Eröffnungskonzert stattfinden. Jedoch stehen am Morgen die Polizei und das Konkursamt bei Ihnen im Büro und informieren Sie darüber, dass die gemietete Musikanlage konfisziert wird, da die vermietende Firma hoch verschuldet ist und deren Gläubiger Konkursverschleppung befürchten. Noch am selben Tag soll die Anlage abgebaut werden. Einige Mitglieder im Organisationskomitee sind schon seit Jahren dabei und kennen viele Musikausrüster. Das Festival abzusagen, wäre ein riesiger finanzieller Schaden, als auch ein grosser Imageverlust. Zudem sind einige der Artisten schon angereist.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

14.

Sie sind Kapitän eines Frachters und liefern verderbliche Ware von Europa nach Japan. Zurzeit befinden Sie sich im Indischen Ozean, südlich von Sri Lanka. Ihre Mannschaft besteht aus Landsleuten, von welchen einige schon lange Jahre zur See fahren. Von Ihrer Rederei erhalten Sie die Anweisung, der Schifffahrtslinie durch die Sunda-Strasse zu folgen. Einige der erfahrenen Seeleute, darunter Ihr erster Offizier, bitten Sie darum, eine andere ebenfalls bekannte und sichere Route weiter nördlich zu fahren, damit Sie schneller in Japan sind und länger Landgang haben. Damit sich die Abkürzung lohnt, müssen Sie noch heute den neuen Kurs einschlagen.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

15.

Sie sind ein Schnellrichter an der Fussballweltmeisterschaft in Ihrem Land. Ihr Auftrag ist es, randalierende Fans, welche von der Polizei gefasst wurden, schnell abzuurteilen. Es gibt noch weitere drei Kollegen, welche zusätzlich eingesetzt werden können. Diese haben jedoch mindestens drei Stunden bis sie die Arbeit aufnehmen können. Nach einem Spiel gab es besonders schwere Ausschreitungen und Sie haben jetzt schon Schwierigkeiten, die eingelieferten Randalierer genügend schnell und dem Recht entsprechend abzuurteilen. In weniger als einer Stunde wird ein weiteres Spiel angepfiffen, von welchem man weiss, dass es mit Sicherheit wieder zu grösseren Ausschreitungen kommen wird. Die Polizei und andere Einsatzkräfte stehen jetzt schon bereit, um einzugreifen.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

16.

Sie sind der Kapitän eines grossen Oldtimerflugzeugs und fliegen mit dieser alten Linienmaschine die Transatlantikstrecke Paris - New York. An Bord befinden sich rund 60 geladene Fluggäste, sowie die Besatzung. Zusammen mit dem Co-Piloten und dem Bordingenieur fliegen Sie die zweimotorige Maschine. Sie haben jenen Punkt schon überflogen, vor welchem eine Umkehr zum Ausgangsflughafen noch möglich wäre. Sie müssen daher die nächste Küste erreichen. Plötzlich fällt eine der beiden Motoren aus unbekannten Gründen aus. Sie müssen den Motor wieder zum Laufen bekommen, da Sie mit einem Motor die amerikanische Küste nicht erreichen werden. Zudem ist es wichtig, den Motor schnell wieder zu starten, da es unsicher ist, dass der zweite Motor die zusätzliche Belastung lange aushält. Für den Fall, dass ein Motor ausfällt, gibt es eine genaue Checkliste, wie der Motor im Flug wieder gestartet werden kann. Zusätzlich gibt es eine Checkliste, anhand derer man den Fehler bei der Maschine findet. Ihr Co-Pilot ist der Meinung, dass man sofort nach Norden abdrehen soll, um das Flugzeug eventuell auf einen nähergelegenen Flugplatz in Grönland notzulanden. Der Bordingenieur will zuerst den Fehler finden, bevor der Motor neu gestartet wird.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

17.

Sie sind der Präsident des Verwaltungsrates einer Aktiengesellschaft. Aufgrund der sehr schwierigen Marktlage braucht Ihre Firma dringend neues Kapital. Nach langer Suche haben Sie zwei vermögende Ethikstiftungen gefunden, welche Ihr Geld ausschliesslich in ethisch und moralisch korrekt handelnde Firmen anlegen. Jedoch wird ein schwerer Fall von Bestechung in der Öffentlichkeit publik, welcher ohne Ihr Wissen in der Verkaufsabteilung stattgefunden hat. Verschiedene grosse Aktionäre und Aktionärsverbände verlangen von Ihnen als Verantwortlicher der Firma den sofortigen Rücktritt. Gleichzeitig ermittelt die Staatsanwaltschaft gegen Sie wegen Beihilfe zur Bestechung. Die beiden Stiftungen drohen mit dem Rückzug ihrer Investition, falls nicht die notwendigen Konsequenzen gezogen werden. Der Verwaltungsrat und das Topmanagement sprechen Ihnen das Vertrauen aus, nehmen Sie in Schutz und wollen Sie weiterhin als Verwaltungsratspräsident.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

18.

Sie sind der Leiter der Verkaufsabteilung einer internationalen Firma und zuständig für den Handel in Europa und Afrika. Jeden Monat treffen Sie sich mit den anderen Verkaufsleitern der restlichen Regionen und der Konzernführung zum Meeting. In diesem Meeting werden die wichtigsten Kennzahlen der verschiedenen Bereiche vorgestellt. Jeder hat 10 Minuten Zeit, alle notwendigen und wichtigen Daten zu präsentieren. Anschliessend wird in der Gruppe beraten, wie weiter vorgegangen werden soll. Der CEO leitet jeden Monat die Veranstaltung, welche immer nach dem gleichen Muster abläuft. Sie sind normalerweise der Letzte, welcher seine Zahlen vorstellt. Um jedoch einmal anders vorzugehen, fordert Sie der CEO auf, als erster Ihre Zahlen vorzustellen.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

19.

Sie sind Verkaufsleiter bei einem Hersteller von Privatjets. Sie leiten ein Team von 5 hochqualifizierten Verkäufern und Sie beliefern sehr reiche Privatkunden und Firmen. Einer Ihrer Verkäufer kommt zu Ihnen, da er gerade Ihr bestes Produkt einem sehr reichen Käufer verkauft hat. Dieser möchte den Privatjet in den nächsten zwei Wochen bei sich haben, damit er nach St. Moritz fliegen kann. Die internationale Flugberechtigung ist jedoch an sehr grosse Auflagen geknüpft, welche Sie als Service für die Kunden erledigen. Normalerweise dauert es rund 1-2 Monate, bis die Flugberechtigung erteilt wird, da viele international gültige Formulare und Anträge ausgefüllt und eingehalten werden müssen. Sie und Ihre Kollegen haben dies aber auch schon einmal innerhalb von 2 Wochen erfolgreich erledigt. Zusätzlich fehlen dem Flugzeug noch ein Pilot, ein Co-Pilot und eine Stewardess. Eine weitere Kollegin von Ihnen hat gute Kontakte zu einer auf Luftfahrt spezialisierten Arbeitsvermittlung.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

20.

Sie sind der Inhaber einer kleinen Privatbank. Sie haben früher in einer grossen Bank im Top Management gearbeitet. Mit dem erworbenen Vermögen und zwei vermögenden Partnern haben Sie anschliessend Ihre eigene Bank gegründet. Vor kurzem wurde einem hohen Mitarbeiter gekündigt, da nachgewiesen worden war, dass mit seiner Hilfe Geld der Mafia über Ihre Bank gewaschen wurde. Sie erhalten ein Schreiben des ehemaligen Mitarbeiters, in welchem er droht, dass er gestohlene Kundendaten veröffentlichen oder an den Meistbietenden verkaufen wird, wenn Sie Ihm nicht einen sehr hohen Betrag überweisen. Sollten Sie die Polizei einschalten, wird er die Kundendaten sofort veröffentlichen. Ihre beiden Partner fordern Sie auf, den Betrag zu zahlen, da jegliche negative Publicity sehr schädlich für das Geschäft und das Image der Bank wäre. Enge Freunde von Ihnen im oberen Management fordern Sie auf, die Polizei zu benachrichtigen. Ein weiterer Manager des oberen Kaders schlägt vor, einen ihm gut bekannten, sehr zuverlässigen und guten Privatdetektiv zu engagieren, um den Aufenthaltsort des Erpressers ausfindig zu machen. Weitere Aktionen könnte man auch über den Privatdetektiv koordinieren.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

21.

Sie sind Leiter eines Marketingteams mit 6 Mitarbeitern. Es ist Freitag am Mittag und Ihre Kollegen freuen sich auf das Wochenende. Aufgrund einer kurzfristigen Entscheidung der Geschäftsleitung müssen Sie bis Mitte nächster Woche ein neues Konzept für einen Messeinformationsstand an der grössten Studentenmesse, welche übernächste Woche stattfindet, erarbeitet haben. Sie werden jedoch am Anfang der Woche mit Ihren Kollegen an einer anderen Messe im Ausland verweilen. Ihr Vorgesetzter will bis Mitte Nachmittag eine Entscheidung, wie Sie den Auftrag angehen möchten.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

22.

Sie sind der Leiter einer Verkehrsleitzentrale einer grossen Stadt. Sie leiten seit Jahren ein eingespieltes Team von 6 Mitarbeitern. Jeder Ihrer Mitarbeiter ist für einen bestimmten Bereich des Verkehrsnetzes zuständig. Auf Ihrem Bildschirm sehen Sie, wie ein Tanklastwagen im wichtigsten Zufahrtstunnel verunfallt und anfängt zu brennen. Durch Krisenmanagementpläne ist Ihnen das Vorgehen klar vorgegeben. Sie wissen, dass der Tunnel sofort abgesperrt werden muss, damit nicht weitere Fahrzeuge in den brennenden Tunnel fahren. Die Feuerwehr, Sanität und Polizei müssen umgehend alarmiert werden. Um helfen zu können brauchen die Notfallfahrzeuge einen Korridor zur Unfallstelle. Der gesamte Feierabendverkehr, welcher gerade einsetzt, muss umgeleitet werden. Zudem müssen Sie die Radio- und Fernsehstationen schnellstens informieren, damit die Bevölkerung sich auf diese Situation einstellen kann.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

23.

Sie sind der langjährige Leiter einer Logistikabteilung bei einem kleinen Hersteller für Wanduhren und leiten drei qualifizierte Mitarbeiter. Um Kosten zu sparen, packen Sie immer wieder verschiedene Lieferungen in einen Container und teilen diese am Zielhafen wieder auf. Da Sie diesmal eine sehr kleine Lieferung haben, beschliesst die Geschäftsleitung, zusammen mit einer befreundeten Firma, welche auch nur eine kleine Lieferung hat, einen Container zu beladen. Am Morgen bekommen Sie Besuch der Bundesanwaltschaft und der Polizei. Ihr Container wurde am Zielhafen in Amerika festgesetzt und es wurde eine erhebliche Menge Drogen gefunden. Als Leiter der Logistik werden Sie beschuldigt, dies organisiert zu haben, da Sie für alle Transporte der Firma verantwortlich sind. Die Polizei will Sie auf dem Revier verhören, gibt Ihnen jedoch noch 10 Minuten unter Beobachtung Zeit, sich zu organisieren. Sollten die Behauptungen verifiziert werden, werden Sie an Amerika ausgeliefert und werden höchstwahrscheinlich sehr lange ins Gefängnis müssen. Zusätzlich würde ein riesiger Schaden für die Firma entstehen.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

24.

Sie sind der Leiter der Hafenbehörde. Seit einigen Stunden entwickelt sich ein Unwetter zu einem sehr schweren Sturm, welcher direkt auf Ihre Position zusteuert. Die Flut wird zeitgleich mit dem Sturm bei Ihnen eintreffen. Der Sturm selber schiebt eine zusätzliche Flutwelle vor sich her. Um die hinter dem Hafen gelegene Stadt zu schützen, wurden schon vor einigen Jahren nach einer verheerenden Flutkatastrophe Flutwehre am Eingang des Hafens gebaut. Diese müssen bei einem bestimmten Pegelstand geschlossen werden. Dies ist sogar gesetzlich festgeschrieben und bei Nichtbeachtung droht Ihnen als Verantwortlichen eine drastische Strafe. Der kritische Pegelstand wird mit Sicherheit in den nächsten 2 Stunden erreicht. Vor der Küste ist zusätzlich eine Passagierfähre mit rund 250 Passagieren an Bord in Seenot geraten. Zwei Schlepper sind dabei, das Schiff zurück in den Hafen zu ziehen. Sie werden jedoch erst in 2-3 Stunden im sicheren Hafen eintreffen. Ihre Kollegen drängen Sie dazu, den Hafen offen zu lassen, bis die Fähre sicher im Hafen ist. Die Stadtbehörde drängt Sie dazu, den Hafen zu schliessen.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

Demographischer Fragebogen

Studienrichtung: _____

Anzahl Semester: _____

Alter: _____ Jahre

Geschlecht: O f O m

Nationalität: _____

Muttersprache: _____

Führungserfahrung: O ja O nein

wenn ja, wie lange: _____ Jahre

Führungsspanne: _____ Personen

Für mich war das Ausfüllen des Fragebogens

sehr schwierig O schwierig O mittel O einfach O sehr einfach O

Folgendes hat mir beim Ausfüllen des Fragebogens Probleme bereitet:

_____

_____

_____

_____

_____

_____

_____

_____

_____

Vielen Dank für die Mitarbeit bei dieser Untersuchung!

Dr. Stefan Seiler & M.Sc. Andres Pfister

Appendix C: Questionnaire for Study 2 (Chapter 3)

MILITÄRAKADEMIE AN DER ETH ZÜRICH

ETH Eidgenössische Technische Hochschule Zürich Swiss Federal Institute of Technology Zurich

Einschätzung von Führungssituationen

Geschätzte Studierende

Wir danken Ihnen herzlich, dass Sie an der vorliegenden Untersuchung teilnehmen. Das Ziel der vorliegenden Untersuchung ist es, den Einfluss verschiedener Faktoren auf das Führungsverhalten genauer zu bestimmen. Grundsätzlich gehen wir davon aus, dass es fünf grosse Faktoren gibt, welche den Einfluss bestimmen. Diese sind:

1) die individuellen Kompetenzen der Führungsperson (z.B. Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)

2) die Gruppe (z.B. Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion der Gruppe, etc.)

3) die Organisation (z.B. Infrastruktur, organisationale Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)

4) der generelle Kontext (z.B. geltende Gesetze, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)

5) die spezifische, unmittelbar aktuelle Führungssituation (z.B. Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)

Die einzelnen Faktoren beinhalten noch eine ganze Reihe weiterer Aspekte, die hier nicht aufgelistet sind. Es geht nicht um eine vollständige Aufzählung aller möglichen Elemente pro Faktor, sondern um Hinweise, welche Bereiche zu den einzelnen Faktoren gehören.

Wir möchten untersuchen, ob sich der Einfluss der fünf Faktoren auf Ihren Führungsentscheid je nach Führungssituation ändert. Die Frage ist also, ob in der einen Führungssituation z.B. der Faktor "Gruppe" sehr wichtig ist, während in einer anderen Situation dieser Faktor weniger wichtig ist.

Zusätzlich bitten wir Sie, pro Situation 3 Zusatzfragen zu beantworten. Wir möchten wissen, wie hoch Sie a) den Zeitdruck für das Treffen einer Entscheidung innerhalb dieser Situation einschätzen, b) wie hoch Sie das Gefahrenpotential einschätzen und c) wie stark das Verhalten der Führungskraft in der jeweiligen Situation durch formalisierte Regeln unabhängig von der Person definiert ist

Ihr konkreter Auftrag:

Sie werden nachfolgend 24 kurze Beschreibungen von Führungssituationen finden. Zu jeder Führungssituation werden Ihnen die gleichen 8 Fragen gestellt. Diese können Sie jeweils anhand einer 5-stufigen Skala beantworten.

- **Bitte lesen Sie jede Situation kurz durch und beantworten Sie die nachfolgenden Fragen zur Situation. Bitte beantworten Sie die einzelnen Fragen spontan, ohne lange zu überlegen.**

- Bei der Beurteilung geht es um die **Einschätzung des Faktors insgesamt**. Daher kann es sein, dass Sie keine Informationen zu jeder Facette des Faktors in der Situationsbeschreibung finden.

- Bitte beantworten Sie die Frage nach **Ihrer persönlichen Einschätzung**. Es gibt keine richtigen oder falschen Antworten.

- Fünf Fragen beziehen sich auf die fünf Faktoren und die restlichen drei Fragen beziehen sich auf die Situation insgesamt.

- Es wird nicht nach dem zu erwarteten Führungsverhalten gefragt, sondern nach Ihrer Einschätzung, welchen Einfluss die einzelnen Faktoren auf Ihren Führungsentscheid haben.

- Es ist sehr wichtig, dass Sie alle Fragen zu allen Situationen gewissenhaft beantworten, damit wir einen kompletten Überblick über alle Situationen erhalten.

- Denken Sie bitte auch daran, dass die verschiedenen Faktoren möglicherweise nicht immer alle den gleichen Einfluss ausüben.

- Am Ende finden Sie einen kurzen **demografischen Fragebogen**, sowie die Möglichkeit, uns **Ihre Rückmeldung zur Untersuchung** zu geben. Bitte füllen Sie diese ebenfalls aus. Für alle Rückmeldungen sind wir Ihnen dankbar.

Die Untersuchung ist vollkommen anonym! Es lässt sich nicht anhand der Daten auf eine bestimmte Person schliessen!

Gerne stehen wir Ihnen für Fragen während und nach der Untersuchung zur Verfügung.

Herzlichen Dank für die Mitarbeit und viel Spass beim Bearbeiten der Führungssituationen!

Dr. Stefan Seiler & M.Sc. Andres Pfister

1.

Sie sind Leiter einer Spielzeugfirma und stellen Plastikfiguren her. Da die Geschäftsentwicklung in den letzten Jahre sehr positiv für Sie war, besteht für die Firma nun die Möglichkeit, den einzigen direkten Konkurrenten zu kaufen. Sie hätten damit in Ihrem Land das Monopol für Plastikfiguren. Der Verwaltungsrat möchte, dass Sie den Konkurrenten übernehmen. Der Staat äussert Bedenken, dass Ihre Firma bei der Übernahme eine Monopolstellung erhält. Zusätzlich könnte die Firma durch die Übernahme rund 200 Stellen einsparen, da sich grosse Bereiche der beiden Firmen überlappen. Gleichzeitig könnten Sie durch die Übernahme zu den grossen internationalen Herstellern aufschliessen. Es wäre vorteilhaft, wenn Sie bis in drei Wochen dem Konkurrenten ein erstes Angebot unterbreiten, denn auch andere internationale Firmen könnten an einer Übernahme interessiert sein.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

2.

Sie sind als Inhaber einer grossen mittelständischen Firma Teil einer Wirtschaftsdelegation, welche unter der Leitung des Aussenministers Japan besucht. Aufgrund der Feierlichkeiten eines 20 jährigen Staatsvertrages zwischen Ihren Ländern ist die gesamte Delegation zu einem Festbankett an den kaiserlichen Hof eingeladen. Der Ablauf des Banketts wird sich nach dem strikten japanischen Hofzeremoniell richten. Da der Sprecher Ihrer Wirtschaftsdelegation unerwartet wegen einer schweren Lebensmittelvergiftung nicht am Bankett anwesend sein kann, müssen Sie im Namen der Delegation eine kurze Ansprache halten. Das Bankett wird jedoch erst in 2 Tagen stattfindet. Sie selber sind das erste Mal in Japan. Andere Delegationsteilnehmer waren schon beim 10 jährigen Jubiläum des Staatsvertrages beim Kaiser zu Besuch und haben zum Teil langjährige Auslandserfahrung.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

3.

Sie sind der Leiter einer kleinen Bäckerei, welche besondere Spezialitäten der Region herstellt. Sie haben sich mit Ihren 10 Mitarbeitern in der Region und in Ihrem Land einen sehr guten Namen erarbeitet. Aufgrund der stark ansteigenden Rohstoffpreise und zu wenig Gewinn sehen Sie sich gezwungen, sich einer grossen Bäckereivereinigung anzuschliessen. Über diese Vereinigung wäre es Ihnen wieder möglich, günstig an die notwendigen Rohstoffe zu kommen. Um der Vereinigung beizutreten, müssen Sie ein offizielles, sehr strukturiertes Beitrittsgesuch schreiben. Zusätzlich müssen Sie all Ihre Firmenzahlen auf den neuesten Stand bringen und diese mit dem Gesuch mit senden. Werden Sie aufgenommen, müssen Sie einerseits den Namen der Bäckerei als auch das Logo nach den Vorgaben der Vereinigung ändern, das Produktsortiment dem der Vereinigung anpassen, sich an der Generalversammlung persönlich vorstellen und aufnehmen lassen und einen Teil des erwirtschafteten Gewinnes an die Vereinigung abgeben. Auch will die Vereinigung den Zugang zu allen Ihren Rezepten, welche Sie bei der definitiven Aufnahme übergeben müssen. Zudem wird die Buchhaltung zukünftig zentral von der Vereinigung übernommen. Daher müssen Sie alle Unterlagen für die Übergabe bereitstellen. Ebenfalls werden die Produktpreise zukünftig von der Vereinigung festgelegt. Ohne den Beitritt zu einer Vereinigung werden Sie Ihre Bäckerei schliessen und all Ihre Mitarbeiter entlassen müssen, da Sie langfristig nicht mehr zu konkurrenzfähigen Preisen produzieren können. Ihre engsten Mitarbeiter bitten Sie darum, nach weiteren Vereinigungen zu suchen, mit welchen man sich einig werden kann, da sie die Voraussetzungen in diesem Fall als sehr ungünstig ansehen.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

4.

Sie sind der Leiter des Steuerungsraums in einem AKW. Zusammen mit Ihrem 3-köpfigen Team sind Sie schon viele Jahre hier tätig. Bis zum jetzigen Zeitpunkt gab es noch nie einen nennenswerten Störfall. Die Notabschaltung des Reaktors wird jedoch wiederholt geübt, da diese nur in einer vorgegebenen Reihenfolge möglich ist, ohne dass es zu einer Katastrophe kommt. In den letzten Wochen hat es sehr wenig geregnet und der Fluss, dessen Wasser zur Kühlung verwendet wird, hat einen historischen Minimalpegelstand erreicht. Plötzlich treten verschiedene Warnsignale auf. Das Kühlsystem des Reaktors hat eine gravierende Fehlfunktion. Sie müssen den Reaktor sofort und korrekt herunterfahren, ansonsten ist ein Reaktorunglück unvermeidlich. Zusätzlich müssen Sie sofort das gesamte Personal über die Lage informieren. Die Vorschriften verlangen auch eine sofortige Benachrichtigung des Betreiberkonsortiums als auch die Benachrichtigung der umliegenden Gemeinden und der Rettungsdienste.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

5.

Sie sind ein Teamleiter bei der örtlichen Polizei. Zusammen mit anderen Teams sind Sie für die Sicherheit bei einem örtlichen Fussballderby verantwortlich. In früheren Begegnungen gab es schon schwere Ausschreitungen zwischen den Fangruppen mit Verletzten bei den Fans und der Polizei. Sie gehören mit Ihrem Team zu den Erfahrensten hinsichtlich Fankrawallen. Die Stadionleitung, der Fussballclub und die Stadtbehörde wollen keine weiteren Ausschreitungen, da sie sonst vom Fussballverband bestraft werden. Sie sind mit Ihrem Team, welches aus 15 Polizisten besteht, im Stadion postiert. Zusätzlich gibt es noch 12 weitere Teams der gleichen Grösse im Stadion. Ausserhalb des Stadions sind nochmals rund 20 Teams im Einsatz. Die Stimmung im Stadion ist schon kurz nach dem Anpfiff angespannt. Nach der letzten Begegnung kam es zu besonders schweren Ausschreitungen zwischen den radikalen Fangruppen. Aus verschiedenen Quellen haben Sie gehört, dass die heimischen Fans sich für das letzte Zusammentreffen rächen wollen.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

6.

Sie sind Produktionsleiter eines grossen Fahrradherstellers. Da Sie Just-in-time produzieren, um keine Lagerkosten zu haben, sind Sie darauf angewiesen, dass alle Zulieferer die Waren rechtzeitig liefern. Falls einer ausfällt, haben Sie knapp 24 Stunden Zeit, um Ersatz zu finden. Als Sie am Morgen ins Büro fahren, hören Sie im Radio, dass bei Ihrem Bremsenhersteller für 2 Tage befristet gestreikt wird. Als Sie im Büro sind, stellen Sie fest, dass die Anzahl Bremsen im Lager nur noch für die heutige Produktion reichen. Mehrere Ihrer Mitarbeiter, welche schon früher im Büro waren, haben derweil verschiedene Lösungsmöglichkeiten erarbeitet. Aus Ihrer früheren Anstellung sind Sie ebenfalls gut mit dem Firmenleiter eines anderen Bremsenherstellers befreundet, welcher noch genügend Bremsen auf Lager haben sollte.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

7.

Sie sind Verkaufsleiter bei einem Luxusgüterhersteller und führen 10 Personen. Einer Ihrer Mitarbeiter hat einen sehr anspruchsvollen und sehr reichen Kunden. Dieser will, dass Sie für die Vertragsunterzeichnung mit Ihrem Mitarbeiter bis in vier Tagen zu ihm reisen. Da es jedoch in Ihrer Firma grosse Probleme mit exzessiven Reisekosten gegeben hat, hat die Firma ein sehr striktes Bewilligungsverfahren eingeführt. Das Bewilligungsverfahren dauert normalerweise rund drei Tage, da Sie auf verschiedenen Formularen den Grund der Reise, die erwarteten Reisekosten, die Reiseroute, Vorschläge für Flüge sowie eine Bestätigung der Wichtigkeit des Reisevorhabens von Ihrem Vorgesetzen eingeben müssen. Sie und verschiedene andere aus Ihrem Team kennen jedoch diejenigen Personen, welche die Reise in der zuständigen Abteilung bearbeiten und bewilligen müssen. Auch Ihr Vorgesetzter ist heute den ganzen Tag im Haus. Bis einen Tag vor Abreise müssen Sie die Bewilligung, die Flugtickets, sowie die weiteren Reiseunterlagen für sich und Ihren Mitarbeiter haben, ansonsten kommt das Geschäft mit dem reichen Kunden nicht zustande.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

8.

Sie sind der Leiter einer kleinen Schule in einem schwer zugänglichen Berggebiet. Zusammen mit drei anderen Lehrern betreuen Sie die Kinder der umliegenden 10 Dörfer. Seit mehreren Tagen gibt es sehr starke Regenfälle. Der Fluss ist über die Ufer getreten und bedroht die Ortschaft im Tal, wo Sie Ihre Schule haben. Mehrere Kinder konnten schon wegen Schlammlawinen nicht in ihre höher gelegenen Dörfer zurückkehren. Während Sie mit den anderen Lehrpersonen die Kinder betreuen, welche noch in der Schule sind, tritt ein Vertreter der Dorfbehörde ein und sagt Ihnen, dass Sie die Schule sofort verlassen müssen, da der weiter oben gelegene Staudamm zu brechen droht.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

9.

Sie sind der Abteilungsleiter einer grossen, international tätigen Bank. Aufgrund der globalen Hypothekenkrise muss die Bank mehrere hundert Millionen abschreiben. Um herauszufinden, wie es zu diesen riesigen Abschreibungen kam, ist eine interne Untersuchungskommission eingesetzt worden, welche die Geschäfte jeder Abteilung untersucht, welche involviert sein könnte. Da Sie mit Ihrer Abteilung im Bereich Risikomanagement tätig sind, haben Sie auch mit den verlustreichen Geschäften zu tun gehabt. Sie wissen jedoch von keinen Fehlern oder Unregelmässigkeiten in Ihrer Abteilung. Einige der langjährigen und guten Mitarbeiter der Abteilung wehren sich gegen die interne Untersuchung, da die Abteilung bis jetzt nie negativ aufgefallen ist. Ein Mitarbeiter droht mit Kündigung, falls seine Arbeit untersucht wird. Die Untersuchung wird vollständig von der Kommission durchgeführt. Von Ihnen erwartet man, dass Sie Ihre Abteilung wie gewohnt weiterführen.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

10.

Sie sind der Leiter einer zivilen Minenräumgruppe, welche sich freiwillig in ein ehemaliges Kriegsgebiet gemeldet hat, um verminte Strassen und Äcker zu räumen. Sie und ihre Gruppe von vier Minenspezialisten und rund zwanzig einheimischen Helfern wollen die Strasse zwischen zwei benachbarten Dörfern von Minen räumen, welche durch ein grosses Minenfeld führt. Es ist klar, dass die Sicherheit Ihrer Gruppe und der Bevölkerung an oberster Stelle steht. Um die Minen zu räumen, müssen Sie zuerst den betreffenden Abschnitt komplett sperren und die Bevölkerung von Ihrem Vorhaben informieren. Um die Lage der Minen zu bestimmen, haben Sie ein ganz striktes Vorgehen, welches auf grösstmögliche Sicherheit abzielt. Beispielsweise wird erst der nächste Meter Strasse geräumt, wenn Sie ganz sicher sind, dass auf dem vorhergehenden Meter keine Minen mehr vergraben sind. Von einer NGO haben Sie zusätzlich das nötige Material bekommen, wie Minensuchgeräte sowie Schutzanzüge. Jedoch können nicht alle Minen so gefunden werden, da das Gerät nicht alle Minenarten anzeigt. D.h. Sie müssen zusätzlich auch von Hand die Strasse räumen. Im Gegenzug will die NGO Fotos von Ihnen bei Ihrer Arbeit machen, um diese in ihrer Broschüre zu publizieren. Zusätzlich hat sich ein örtlicher Regierungsvertreter angekündigt, um den Fortgang der Räumung zu begutachten. Links und rechts neben der Strasse an der Sie arbeiten, sind noch hunderte weitere Minen vergraben, welche jederzeit explodieren können. Sie sind auch für die Sicherheit der Fotografen und des Regierungsvertreters verantwortlich.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

11.

Sie sind der Leiter einer Hafenbehörde einer kleinen Tourismusinsel. Vor dem Hafen liegt ein Kreuzfahrtschiff, auf welchem eine sehr ansteckende Magen-Darmerkrankung ausgebrochen ist. Die staatlichen und internationalen Vorschriften geben klar vor, dass das Schiff unter Teilquarantäne gestellt werden muss und nicht in den Hafen einlaufen darf. Die ärztliche Versorgung des Schiffes ist schon sichergestellt. Die Stadtverwaltung will, dass den Betroffenen so gut wie möglich geholfen wird. Daher haben Sie den Auftrag, die Versorgung des Schiffes unter den entsprechenden Quarantäneauflagen weiterhin sicher zu stellen. Zusätzlich müssen Sie den Abtransport der nicht erkrankten Passagiere und Besatzungsmitglieder organisieren. Hierfür müssen Sie die verschiedenen Botschaften der jeweiligen gesunden Passagiere benachrichtigen. Auch die Rederei muss von Ihnen informiert werden, damit sie die Teile der Besatzung ersetzt, welche ebenfalls erkrankt ist. Sie und Ihr achtköpfiges Team haben es zum ersten Mal mit einem Quarantänefall dieser Grösse zu tun. Zwei Spezialisten für Quarantäne der internationalen Schifffahrtsorganisation sind jedoch schon auf dem Weg zu Ihnen und werden im Verlaufe des morgigen Tages bei Ihnen eintreffen.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

12.

Sie werden als Leiter einer freiwilligen Dorffeuerwehr mit Ihrem Löschzug zu einem Wohnungsbrand im alten Dorfkern gerufen. Da dies nicht der erste Brand ist in diesem Jahr, bringen Sie und Ihre Mannschaft genügend Erfahrung bei der Brandbekämpfung mit. Als Sie eintreffen, wird Ihnen von einem Passanten mitgeteilt, dass noch jemand in der Wohnung vom Feuer eingeschlossen ist. Zudem bemerken Sie, dass das Feuer auf das daneben stehende Fachwerkhaus übergreift. Sie haben nur zwei Löschzüge zur Verfügung und Ihnen ist klar, dass Sie den Brand unbedingt unter Kontrolle bringen müssen, bevor er sich weiter ausbreitet und dass Sie die eingeschlossene Person retten müssen. Sie können andere Feuerwehren aus benachbarten Dörfern rufen, diese brauchen jedoch bis zu einer halben Stunde, bis sie am Brandort eintreffen.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

13.

Sie sind der Organisator eines kleinen Musikfestivals, welches schon seit Jahren in Ihrer Stadt stattfindet. Zusammen mit Ihrem Organisationskomitee und den Verantwortlichen der Stadt haben Sie ein hervorragendes Programm zusammengestellt. Ein grosser Teil der Tickets sind schon verkauft, die Artisten gebucht und das Festivalgelände ist fast fertig aufgebaut. In zwei Tagen wird das Eröffnungskonzert stattfinden. Jedoch stehen am Morgen die Polizei und das Konkursamt bei Ihnen im Büro und informieren Sie darüber, dass die gemietete Musikanlage konfisziert wird, da die vermietende Firma hoch verschuldet ist und deren Gläubiger Konkursverschleppung befürchten. Noch am selben Tag muss die Anlage abgebaut werden. Einige Mitglieder im Organisationskomitee sind schon seit Jahren dabei und kennen viele Musikausrüster aus der Region. Mehrere neue Angebote werden in diesem Moment eingeholt. Zudem sind einige der Artisten schon angereist.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

14.

Sie sind Kapitän eines Frachters und liefern verderbliche Ware von Europa nach Japan. Zurzeit befinden Sie sich im Indischen Ozean, südlich von Sri Lanka. Ihre Mannschaft besteht aus Landsleuten, von welchen einige schon lange Jahre zur See fahren. Von Ihrer Rederei erhalten Sie die Anweisung, der Schifffahrtslinie durch die Sunda-Strasse zu folgen. Einige der erfahrenen Seeleute, darunter Ihr erster Offizier, bitten Sie darum, eine andere ebenfalls bekannte und sichere Route weiter nördlich zu fahren, damit Sie schneller in Japan sind und länger Landgang haben. Damit sich die Abkürzung lohnt, müssen Sie in den nächsten Tagen den neuen Kurs einschlagen.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

15.

Sie sind ein Schnellrichter an der Fussballweltmeisterschaft in Ihrem Land und leiten zusätzlich die provisorisch eingerichtete Schnellrichterabteilung. Ihr Auftrag ist es, randalierende Fans, welche von der Polizei gefasst wurden, schnell abzuurteilen. Es gibt noch einen weiteren Kollegen der mit Ihnen arbeitet und weitere drei Kollegen, welche zusätzlich eingesetzt werden können. Diese haben jedoch mindestens eine Stunde bis sie die Arbeit aufnehmen können. Nach einem Spiel gab es besonders schwere Ausschreitungen und Sie haben jetzt schon Schwierigkeiten, die eingelieferten Randalierer genügend schnell und dem Recht entsprechend abzuurteilen. In weniger als einer Stunde wird ein weiteres Spiel angepfiffen, von welchem man weiss, dass es mit Sicherheit wieder zu grösseren Ausschreitungen kommen wird. Die Polizei und andere Einsatzkräfte stehen jetzt schon bereit, um einzugreifen. Um die drei zusätzlichen Richter aufzubieten, müssen Sie sich umgehend mit Ihrem Vorgesetzten in Verbindung setzen. Zusätzlich müssen Sie dafür sorgen, dass drei zusätzliche Richterräume bereit stehen und dass die Einsatzkräfte und die Inhaftierungsstellen über die zusätzlichen Richter informiert sind. Ein Praktikant aus Ihrem Gericht, wo sie normalerweise arbeiten, unterstützt Sie freiwillig während der Weltmeisterschaft.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

16.

Sie sind der Kapitän eines grossen Oldtimerflugzeugs und fliegen mit dieser alten Linienmaschine die Transatlantikstrecke Paris - New York. An Bord befinden sich rund 60 geladene Fluggäste, sowie die Besatzung. Zusammen mit dem Co-Piloten und dem Bordingenieur fliegen Sie die zweimotorige Maschine. Sie haben jenen Punkt schon überflogen, vor welchem eine Umkehr zum Ausgangsflughafen noch möglich wäre. Sie müssen daher die nächste Küste erreichen. Plötzlich fällt einer der beiden Motoren aus unbekannten Gründen aus. Sie müssen den Motor wieder zum Laufen bekommen, da Sie mit einem Motor die amerikanische Küste nicht erreichen werden. Zudem ist es wichtig, den Motor schnell wieder zu starten, da es unsicher ist, ob der zweite Motor die zusätzliche Belastung lange aushält. Für den Fall, dass ein Motor ausfällt, gibt es eine genaue Checkliste, wie der Motor im Flug wieder gestartet werden kann. Zusätzlich gibt es eine Checkliste, anhand derer man den Fehler bei der Maschine findet. Des Weiteren müssen Sie umgehend den Zielflughafen informieren, sowie die möglichen Ausweichflugplätze über Funk für Landemöglichkeiten anfragen. Ihr Co-Pilot ist der Meinung, dass man sofort nach Norden abdrehen soll, um das Flugzeug eventuell auf einen nähergelegenen Flugplatz in Grönland notzulanden. Der Bordingenieur will zuerst den Fehler finden, bevor der Motor neu gestartet wird.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

17.

Sie sind der Präsident des Verwaltungsrates einer Aktiengesellschaft. Aufgrund der sehr schwierigen Marktlage braucht Ihre Firma dringend neues Kapital. Nach langer Suche haben Sie zwei vermögende Ethikstiftungen gefunden, welche Ihr Geld ausschliesslich in ethisch und moralisch korrekt handelnde Firmen anlegen. Jedoch wird ein schwerer Fall von Bestechung in Ihrem Unternehmen aufgedeckt, welcher ohne Ihr Wissen in der Verkaufsabteilung stattgefunden hat. Verschiedene grosse Aktionäre und Aktionärsverbände verlangen von Ihnen als Verantwortlicher der Firma den sofortigen Rücktritt. Gleichzeitig ermittelt die Staatsanwaltschaft gegen Sie wegen Beihilfe zur Bestechung. Die beiden Stiftungen drohen mit dem Rückzug ihrer Investition, falls nicht die notwendigen Konsequenzen gezogen werden. Der Verwaltungsrat und das Topmanagement sprechen Ihnen das Vertrauen aus, nehmen Sie in Schutz und wollen Sie weiterhin als Verwaltungsratspräsident. Sie konnten mit ersten Informationen die Anfragen der Presse beantworten. Der Unmut in der Öffentlichkeit ist aber nach wie vor gross. Sie konnten sich durch eine gute Informationspolitik einen gewissen Freiraum schaffen und haben nun 10 Tage Zeit, bevor die nächste Aktionärsinformation und Pressekonferenz stattfindet.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

18.

Sie sind der Leiter der Verkaufsabteilung einer internationalen Firma und zuständig für den Handel in Europa und Afrika. Am Ende jedes Monats treffen Sie sich mit den anderen Verkaufsleitern der restlichen Regionen und der Konzernführung zum Meeting. In diesem Meeting werden die wichtigsten Kennzahlen der verschiedenen Bereiche besprochen. In vier Monaten sollen Sie im Meeting zusätzlich die neue Verkaufsstrategie für Zentralafrika vorstellen. Der CEO will hierfür von Ihnen die Verkaufszahlen der Region, eine Wachstumsprognose, eine genaue Aufschlüsselung nach verkauften Produkten und wie man bei den einzelnen Produktgruppen vorgehen soll, sowie Informationen über mögliche rechtliche Limitierungen und Möglichkeiten sowie konkrete Vorschläge für die Umsetzung der neuen Verkaufsstrategie.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

19.

Sie sind Verkaufsleiter bei einem Hersteller von Privatjets. Sie leiten ein Team von 5 hochqualifizierten Verkäufern und Sie beliefern sehr reiche Privatkunden und Firmen. Einer Ihrer Verkäufer kommt zu Ihnen, da er gerade Ihr bestes Produkt einem sehr reichen Käufer verkauft hat. Dieser möchte den Privatjet in den nächsten zwei Wochen bei sich haben, damit er nach St. Moritz fliegen kann. Die internationale Flugberechtigung ist jedoch an sehr grosse Auflagen geknüpft, welche Sie als Service für die Kunden erledigen. Normalerweise dauert es rund 1-2 Monate, bis die Flugberechtigung erteilt wird, da viele international gültige Formulare und Anträge ausgefüllt und eingehalten werden müssen. Sie und Ihre Kollegen haben dies aber auch schon einmal innerhalb von zwei Wochen erfolgreich erledigt. Zusätzlich fehlen dem Flugzeug noch ein Pilot, ein Co-Pilot und eine Stewardess. Eine weitere Kollegin von Ihnen hat gute Kontakte zu einer auf Luftfahrt spezialisierten Arbeitsvermittlung.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

20.

Sie sind der Inhaber einer kleinen Privatbank. Sie haben früher in einer grossen Bank im Top Management gearbeitet. Mit dem erworbenen Vermögen und zwei vermögenden Partnern haben Sie anschliessend Ihre eigene Bank gegründet. Vor kurzem wurde einem hohen Mitarbeiter gekündigt, da nachgewiesen worden war, dass mit seiner Hilfe Geld der Mafia über Ihre Bank gewaschen wurde. Sie erhalten ein Schreiben des ehemaligen Mitarbeiters, in welchem er droht, dass er gestohlene Kundendaten veröffentlichen oder an den Meistbietenden verkaufen wird, wenn Sie Ihm nicht einen sehr hohen Betrag überweisen. Er gibt Ihnen für die Überweisung jedoch drei Wochen Zeit. Sollten Sie die Polizei einschalten, wird er die Kundendaten veröffentlichen. Ihre beiden Partner fordern Sie auf, den Betrag zu zahlen, da jegliche negative Publicity sehr schädlich für das Geschäft und das Image der Bank wäre. Enge Freunde von Ihnen im oberen Management fordern Sie auf, die Polizei zu benachrichtigen. Ein weiterer Manager des oberen Kaders schlägt vor, einen ihm bekannten, sehr zuverlässigen und guten Privatdetektiv zu engagieren, um den Aufenthaltsort des Erpressers ausfindig zu machen. Weitere Aktionen könnte man auch über den Privatdetektiv koordinieren.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

21.

Sie sind Leiter eines Marketingteams mit 6 Mitarbeitern. Es ist Freitag am Mittag und Ihre Kollegen freuen sich auf das Wochenende. Aufgrund einer kurzfristigen Entscheidung der Geschäftsleitung müssen Sie bis Mitte nächster Woche ein neues Konzept für einen Messeinformationsstand an der grössten Studentenmesse, welche übernächste Woche stattfindet, erarbeitet haben. Sie werden jedoch am Anfang der Woche mit Ihren Kollegen an einer anderen Messe im Ausland verweilen. Ihr Vorgesetzter will bis Mitte Nachmittag eine Entscheidung, wie Sie den Auftrag angehen möchten.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

22.

Sie sind der Leiter einer Verkehrsleitzentrale einer grossen Stadt. Sie leiten seit Jahren ein eingespieltes Team von 6 Mitarbeitern. Jeder Ihrer Mitarbeiter ist für einen bestimmten Bereich des Verkehrsnetzes zuständig. Auf Ihrem Bildschirm sehen Sie, wie ein Tanklastwagen im wichtigsten Zufahrtstunnel verunfallt und anfängt zu brennen. Durch Krisenmanagementpläne ist Ihnen das Vorgehen klar vorgegeben. Sie wissen, dass der Tunnel sofort abgesperrt werden muss, damit nicht weitere Fahrzeuge in den brennenden Tunnel fahren. Die Feuerwehr, Sanität und Polizei müssen umgehend alarmiert werden. Um helfen zu können brauchen die Notfallfahrzeuge einen Korridor zur Unfallstelle. Hierfür müssen Sie über die Steuerung des Verkehrsleitsystems die Zufahrten zum Tunnel so ändern, dass der ganze Verkehr nur auf einer Spur fährt und eine für die Notfallfahrzeuge frei wird. Der gesamte Feierabendverkehr, welcher gerade einsetzt, muss zudem auf Ausweichrouten umgeleitet werden. Zudem müssen Sie die Radio- und Fernsehstationen schnellstens informieren, damit die Bevölkerung sich auf diese Situation einstellen kann. Auch die städtischen Verkehrsbetriebe sollten benachrichtigt werden, damit diese sich auf die veränderte Verkehrssituation einstellen können. Der ganze Ablauf ist in einem Notfallszenario inklusive Checklisten aufgeschrieben und wird sporadisch geübt.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

23.

Sie sind der langjährige Leiter einer Logistikabteilung bei einem kleinen Hersteller für Wanduhren und leiten drei qualifizierte Mitarbeiter. Um Kosten zu sparen, packen Sie immer wieder verschiedene Lieferungen in einen Container und teilen diese am Zielhafen wieder auf. Da Sie diesmal eine sehr kleine Lieferung haben, beschliesst die Geschäftsleitung, zusammen mit einer befreundeten Firma, welche auch nur eine kleine Lieferung hat, einen Container zu beladen. Am Morgen bekommen Sie Besuch der Bundesanwaltschaft und der Polizei. Ihr Container wurde am Zielhafen in Amerika festgesetzt und es wurde eine erhebliche Menge Drogen gefunden. Als Leiter der Logistik werden Sie beschuldigt, dies organisiert zu haben, da Sie für alle Transporte der Firma verantwortlich sind. Die Polizei will Sie auf dem Revier verhören, gibt Ihnen jedoch noch 10 Minuten unter Beobachtung Zeit, sich zu organisieren. Sollten die Behauptungen verifiziert werden, werden Sie an Amerika ausgeliefert und werden höchstwahrscheinlich sehr lange ins Gefängnis müssen. Zusätzlich würde ein riesiger Schaden für die Firma entstehen.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

24.

Sie sind Mitglied des unteren Managements einer internationalen, wohltätigen Organisation, welche sich für das Wohl der Kinder weltweit einsetzt. Sie sind der Leiter der kleinen Controllingabteilung. Einer Ihrer drei Mitarbeiter kommt am Morgen zu Ihnen und weist Sie anhand verschiedener Unterlagen darauf hin, dass grosse Mengen an Spendengeldern irgendwo in den oberen Managementebenen veruntreut werden. Ihr Mitarbeiter hat diesen Sachverhalt schon mit seinen Kollegen besprochen, daher wissen diese davon Bescheid. Jedoch ist nicht sicher, wer die Spenden veruntreut. Als Leiter Controlling müssen Sie der Sache nachgehen und notfalls die Polizei und Staatsanwaltschaft einschalten. Jedoch brauchen Sie hierfür stichhaltige Beweise in Form von Unterlagen, welche genau aufzeigen, wer das Geld veruntreut. Ihr Vorgänger wurde aufgrund einer falschen Anschuldigung fristlos entlassen. Auch die Mitarbeiter der ganzen Controllingabteilung wurden vom oberen Management ausgewechselt, nachdem die damaligen Anschuldigungen publik wurden und es grosse Einbussen bei den Spendeneinnahmen gegeben hatte.

A) Wie stark wird in der oben beschriebenen Situation Ihr Verhalten von den folgenden Faktoren beeinflusst?

	gar nicht	etwas	mittel	stark	sehr stark
Die individuelle Kompetenz (Erfahrung, Fachkenntnis, Kommunikationsfähigkeit, Problemlösefähigkeit, etc.)	①	②	③	④	⑤
Die Gruppe (Gruppenmeinung, Erfahrung der Mitglieder, Zusammensetzung der Gruppe, Kohäsion etc.)	①	②	③	④	⑤
Die Organisation (Infrastruktur, Vorgaben, definierte Prozessabläufe, Leistungsanreize, etc.)	①	②	③	④	⑤
Der generelle Kontext (geltende Gesetzte, Umweltbedingungen, historische Ereignisse, geltende kulturelle Regeln & Normen, etc.)	①	②	③	④	⑤
Die spezifische Führungssituation (Risiko von Misserfolg und Schäden, Vertrautheit mit der Situation, unmittelbarer Entscheidungsdruck, Unklarheiten, etc.)	①	②	③	④	⑤

B) Wie hoch schätzen Sie in dieser Situation die folgenden Aspekte ein?

	gar nicht	etwas	mittel	stark	sehr stark
Zeitdruck	①	②	③	④	⑤
Gefahrenpotential	①	②	③	④	⑤
Grad an formalen Verhaltensvorgaben	①	②	③	④	⑤

Demographischer Fragebogen

Studienrichtung: _____

Anzahl Semester: _____

Alter: _____ Jahre

Geschlecht: O f O m

Nationalität: _____

Muttersprache: _____

Führungserfahrung: O ja O nein

wenn ja, wie lange: _____ Jahre

Führungsspanne: _____ Personen

Für mich war das Ausfüllen des Fragebogens

sehr schwierig O schwierig O mittel O einfach O sehr einfach O

Folgendes hat mir beim Ausfüllen des Fragebogens Probleme bereitet:

_____

_____

_____

_____

_____

_____

_____

_____

_____

Vielen Dank für die Mitarbeit bei dieser Untersuchung!

Dr. Stefan Seiler & M.Sc. Andres Pfister

Appendix D: Questionnaire for Study 3 and 4 (Chapter 4, 5)

The online version of Study 4 was structured exactly the same as the paper and pencil version presented on the following pages. For Study 3 the evaluations of the nine leadership scenarios (pp. 287-304 of this questionnaire) of the Swiss sample were used.

CULTURE, PERSONALITY AND SITUATION

Voluntary Participation

Providing information on this survey **is voluntary and anonymous**. There will be no effort to trace any information back to an individual. **There is no penalty if you choose to not respond.** However, maximum participation is encouraged so that data will be complete and representative.

Although you have been directed to be here now, **your participation in the study is voluntary.** Please note that by completing the questionnaire you are giving your consent to participate in this survey. Also, you may stop your participation at any time, leave the room, or sit and wait quietly. You do not have to hand in your completed questionnaire, should you choose not to participate.

Confidentiality

All data collected in this study is strictly anonymous and is used for research purpose only.

For any questions concerning this study feel free to contact us at any time:

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Research Assistant
Leadership and Communication Studies
MILAK at ETHZ / Zurich
Switzerland

Thank you very much for your assistance and enjoy the study.

This survey is completely voluntary. You may choose not to participate if you wish to do so.

Welcome to the study on culture, personality and leadership.

The study is conducted by the Department of Leadership and Communication Studies of the MILAK at ETH Zurich (M.Sc. Andres Pfister & Dr. Stefan Seiler) as well as the Department of Social and Economic Psychology of the University of Zurich (Prof. Dr. Klaus Jonas) and the Indonesian National Army (LtCol Eri Radityawara Hidayat).

The goal of this study is to analyze how personality and culture influence situation perception and leadership behavior.

This study consists of three main parts.

Part one is an ***evaluation of the culture you belong to*** using a set of 39 different statements which have to be rated. The questionnaire measures 9 different dimensions of culture from the GLOBE study. The GLOBE (Global Leadership and Organizational Behavior Effectiveness) study was conducted in 62 different countries around the world.

Part two is an ***evaluation of your own personality*** using a set of 41 statements that you will rate. These statements measure five classic dimensions of personality, known as the Big Five, which has been used in a wide variety of psychological research.

Part three is an ***evaluation of specific leadership situations***. Nine leadership situations are described. Each situation has to be rated in terms of its ***time-pressure, danger and degree of formalization***. In addition, in each situation, the influence of five additional factors on leadership behavior has to be rated. These five factors include:

1) ***the individual competence*** of the leader (e.g. experience, communication skills, problem solving skills, etc.);

2) ***the group*** one is working in (e.g. group opinion, experience of group members, group composition, etc.);

3) ***the organization*** they are embedded in (e.g. infrastructure, defined processes, strategy, etc.);

4) ***the general context*** they are in (e.g. applicable laws, environmental conditions, history, geography, etc.);

5) ***the current situation*** the leader is in at that specific moment (e.g. risk of failure, familiarity of situation, uncertainties, etc.).

The adequacy of five different leadership decision behaviors also has to be rated in each leadership situation. Finally, one of the five leadership decision behaviors has to be chosen. These five behaviors are:

1) ***deciding alone***;
2) ***consulting*** with others and deciding alone;
3) ***deciding together*** with others;
4) ***delegating*** the decision to others; and
5) ***waiting or ignoring*** the situation and not deciding.

At the end you will be asked questions regarding your age, sex, education, country and culture you live in as well as your leadership experience. This information is important for us in the later analysis on how personality and culture influence situation evaluation and leadership behavior. Your results will be presented to you at the end of this study (i.e., culture, personality, and your evaluations of the leadership situations).

IMPORTANT INFORMATION AND REQUESTS

It will take about 30-40 minutes to complete the study.

There is no right or wrong answer in this study! All answers or ratings should reflect your own personal and honest evaluation so that you can receive a good and honest feedback for yourself at the end of the study.

Please do not hesitate to use the full range of the different scales for your ratings.

Thank you for your time.

PART ONE: **CULTURE**

The following block of 39 questions focuses on ***your perception of the culture you see yourself as a part of***. For example, if you are living in Canada and you are raised in the Canadian culture you rate the Canadian culture. If you are living in Canada as a foreign student and you have mainly lived in China you rate the Chinese culture. At the end of the study you can indicate which culture you have actually rated.

There are two types of questions in this section. An example of the first type of question is shown below.

A. In this country, the weather is generally:

very pleasant			**mode-rately pleasant**			**very un-pleasant**
①	②	③	④	⑤	⑥	⑦

For a question like this, you would choose the number from 1 to 7 that is closest to your perception about your country. For example, if you think the weather in your country is "very pleasant", you would choose 1. If you think the weather is not quite "very pleasant" but better than "moderately pleasant", you would choose either 2 or 3, depending on whether you think the weather is closer to "very pleasant" or "moderately pleasant".

The second type of question asks how much you agree or disagree with a particular statement. An example of this type of question is given below.

B. The weather in this country is pleasant.

strongly agree			**neither agree nor disagree**			**strongly disagree**
①	②	③	④	⑤	⑥	⑦

For a question like this, you would choose the number from 1 to 7 that is closest to your level of agreement with the statement. For example, if you strongly agree that the weather in your country is very pleasant, you would choose 1. If you generally agree with the statement but disagree slightly, you would chose either 2 or 3, depending on how strongly you agree with the statement. If you disagree with the statement, you would chose 5, 6, or 7, depending on how much you disagree with the statement.

CULTURE STATEMENTS

1. In this society, orderliness and consistency are stressed, even at the expense of experimentation and innovation.

strongly agree			**neither agree nor disagree**			**strongly disagree**
①	②	③	④	⑤	⑥	⑦

2. In this society, people are generally:

aggres-sive						**non-aggres-sive**
①	②	③	④	⑤	⑥	⑦

3. The way to be successful in this society is to:

plan ahead						**take events as they occur**
①	②	③	④	⑤	⑥	⑦

4. In this society, the accepted norm is to:

plan for the future						**accept the status quo**
①	②	③	④	⑤	⑥	⑦

5. In this society, a person's influence is based primarily on:

one's ability and contribution to the society						the authority of one's position
①	②	③	④	⑤	⑥	⑦

6. In this society, people are generally:

assertive						non-assertive
①	②	③	④	⑤	⑥	⑦

7. In this society, leaders encourage group loyalty even if individual goals suffer.

strongly agree			neither agree nor disagree			strongly disagree
①	②	③	④	⑤	⑥	⑦

8. In this society, social gatherings are usually:

planned well in advance (2 or more weeks in advance)						spontaneous (planned less than an hour in advance)
①	②	③	④	⑤	⑥	⑦

9. In this society, people are generally:

very concerned about others						not at all concerned about others
①	②	③	④	⑤	⑥	⑦

10. In this society, people are generally:

dominant						non-dominant
①	②	③	④	⑤	⑥	⑦

11. In this society, children take pride in the individual accomplishments of their parents.

strongly agree			neither agree nor disagree			strongly disagree
①	②	③	④	⑤	⑥	⑦

12. The economic system in this society is designed to maximize:

individual interests						collective interests
①	②	③	④	⑤	⑥	⑦

13. In this society, followers expect to:

obey their leaders without question						question their leaders when in disagree-ment
①	②	③	④	⑤	⑥	⑦

14. In this society people are generally:

tough						tender
①	②	③	④	⑤	⑥	⑦

15. In this society, teen-aged students are encouraged to strive for continuously improved performance.

strongly agree			neither agree nor disagree			strongly disagree
①	②	③	④	⑤	⑥	⑦

16. In this society, people lead highly structured lives with few unexpected events.

strongly agree			neither agree nor disagree			strongly disagree
①	②	③	④	⑤	⑥	⑦

17. In this society, boys are encouraged more than girls to attain a higher education.

strongly agree			neither agree nor disagree			strongly disagree
①	②	③	④	⑤	⑥	⑦

18. In this society, major rewards are based on:

only performance effectiveness			**performance effectiveness and other factors (for example, seniority or political connections)**			**only on factors other than performance effectiveness (for example, seniority or political connections)**
①	②	③	④	⑤	⑥	⑦

19. In this society, societal requirements and instructions are spelled out in detail so citizens know what they are expected to do.

strongly agree			**neither agree nor disagree**			**strongly disagree**
①	②	③	④	⑤	⑥	⑦

20. In this society, being innovative to improve performance is generally:

substantially rewarded			**somewhat rewarded**			**not rewarded**
①	②	③	④	⑤	⑥	⑦

21. In this society, people are generally:

very sensitive towards others						not at all sensitive towards others
①	②	③	④	⑤	⑥	⑦

22. In this society, there is more emphasis on athletic programs for:

boys						girls
①	②	③	④	⑤	⑥	⑦

23. In this society, parents take pride in the individual accomplishments of their children.

strongly agree			neither agree nor disagree			strongly disagree
①	②	③	④	⑤	⑥	⑦

24. This society has rules or laws to cover:

almost all situ-ations			some situ-ations			very few situ-ations
①	②	③	④	⑤	⑥	⑦

25. In this society, people are generally:

very friendly						very un-friendly
①	②	③	④	⑤	⑥	⑦

26. In this society, people in positions of power try to:

increase their social distance from less powerful individu-als						**decrease their social distance from less powerful individu-als**
①	②	③	④	⑤	⑥	⑦

27. In this society, rank and position in the hierarchy have special privileges.

strongly agree			**neither agree nor disagree**			**strongly disagree**
①	②	③	④	⑤	⑥	⑦

28. In this society, aging parents generally live at home with their children.

strongly agree			**neither agree nor disagree**			**strongly disagree**
①	②	③	④	⑤	⑥	⑦

29. In this society, being accepted by the other members of a group is very important.

strongly agree			**neither agree nor disagree**			**strongly disagree**
①	②	③	④	⑤	⑥	⑦

30. In this society, more people:

live for the present than live for the future						**live for the future than live for the present**
①	②	③	④	⑤	⑥	⑦

31. In this society, people place more emphasis on:

solving current problems						**planning for the future**
①	②	③	④	⑤	⑥	⑦

32. In this society, people are generally:

very tolerant of mistakes						**not at all tolerant of mistakes**
①	②	③	④	⑤	⑥	⑦

33. In this society, people are generally:

generous						**not at all generous**
①	②	③	④	⑤	⑥	⑦

34. In this society, power is:

concen-trated at the top						shared through-out the society
①	②	③	④	⑤	⑥	⑦

35. In this society:

group cohesion is more valued than individua lism			group cohesion and individua lism are equally valued			individua lism is more valued than group cohesion
①	②	③	④	⑤	⑥	⑦

36. In this society, it is worse for a boy to fail in school than for a girl to fail in school.

strongly agree			neither agree nor disagree			strongly disagree
①	②	③	④	⑤	⑥	⑦

37. In this society, people are generally:

physical						non-physical
①	②	③	④	⑤	⑥	⑦

38. In this society, who is more likely to serve in a position in high office?

men			men and women are equally likely to serve			women
①	②	③	④	⑤	⑥	⑦

39. In this society, children generally live at home with their parents until they get married.

strongly agree			neither agree nor disagree			strongly disagree
①	②	③	④	⑤	⑥	⑦

PART TWO: PERSONALITY

On the following pages, 41 statements are presented which describe people's behavior. Please rate those statements with the given scale. Out of the 41 statements, five different aspects of personality can be calculated. This personality test was introduced by Tom Buchanan, John A. Johnson, and Lewis R. Goldberg in 2005. As all data in this study, the results of the personality test are anonymous.

Please use the ratings below to describe how accurately each statement describes you. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are and roughly your same age. In order to allow you to describe yourself in an honest manner, your responses will be kept in absolute confidence. Please read each statement carefully, and then click the bubble that corresponds to your reply.

PERSONALITY STATEMENTS

	very inaccurate	moderately inaccurate	neither inaccurate nor accurate	moderately accurate	very accurate
Tend to vote for conservative political candidates.	❍	❍	❍	❍	❍
Have frequent mood swings.	❍	❍	❍	❍	❍
Am not easily bothered by things.	❍	❍	❍	❍	❍
Believe in the importance of art.	❍	❍	❍	❍	❍
Am the life of the party.	❍	❍	❍	❍	❍
Am skilled in handling social situations.	❍	❍	❍	❍	❍
Am always prepared.	❍	❍	❍	❍	❍
Make plans and stick to them.	❍	❍	❍	❍	❍
Dislike myself.	❍	❍	❍	❍	❍
Respect others.	❍	❍	❍	❍	❍

	very inaccurate	moderately inaccurate	neither inaccurate nor accurate	moderately accurate	very accurate
Insult people.	❍	❍	❍	❍	❍
Seldom feel blue.	❍	❍	❍	❍	❍
Don't like to draw attention to myself.	❍	❍	❍	❍	❍
Carry out my plans.	❍	❍	❍	❍	❍
Am not interested in abstract ideas.	❍	❍	❍	❍	❍
Make friends easily.	❍	❍	❍	❍	❍
Tend to vote for liberal political candidates.	❍	❍	❍	❍	❍
Know how to captivate people.	❍	❍	❍	❍	❍
Believe that others have good intentions.	❍	❍	❍	❍	❍
Do just enough work to get by.	❍	❍	❍	❍	❍
Find it difficult to get down to work.	❍	❍	❍	❍	❍
Panic easily.	❍	❍	❍	❍	❍
Avoid philosophical discussions.	❍	❍	❍	❍	❍
Accept people as they are.	❍	❍	❍	❍	❍
Do not enjoy going to art museums.	❍	❍	❍	❍	❍
Pay attention to details.	❍	❍	❍	❍	❍
Keep in the background.	❍	❍	❍	❍	❍
Feel comfortable with myself.	❍	❍	❍	❍	❍
Waste my time.	❍	❍	❍	❍	❍

	very inaccurate	moderately inaccurate	neither inaccurate nor accurate	moderately accurate	very accurate
Get back at others.	❍	❍	❍	❍	❍
Get chores done right away.	❍	❍	❍	❍	❍
Don't talk a lot.	❍	❍	❍	❍	❍
Am often down in the dumps.	❍	❍	❍	❍	❍
Shirk my duties.	❍	❍	❍	❍	❍
Do not like art.	❍	❍	❍	❍	❍
Often feel blue.	❍	❍	❍	❍	❍
Cut others to pieces.	❍	❍	❍	❍	❍
Have a good word for everyone.	❍	❍	❍	❍	❍
Don't see things through.	❍	❍	❍	❍	❍
Feel comfortable around people.	❍	❍	❍	❍	❍
Have little to say.	❍	❍	❍	❍	❍

PART THREE: **LEADERSHIP SITUATIONS**

On the following pages, nine different leadership situations are presented. Please read each situation description carefully. Each situation requires several ratings. First, you will be asked to rate each situation regarding the influence of the following five factors on the leadership behavior you would show in this situation. The five factors are:

1) ***the individual competence*** of the leader (e.g. experience, communication skills, problem solving skills, etc.);

2) ***the group*** one is working in (e.g. group opinion, experience of group members, group composition, etc.);

3) ***the organization*** they are embedded in (e.g. infrastructure, defined processes, strategy, etc.);

4) ***the general context*** they are in (e.g. applicable laws, environmental conditions, history, geography, etc.);

5) ***the current situation*** the leader is in at that specific moment (e.g. risk of failure, familiarity of situation, uncertainties, etc.).

The ***General context*** refers to the amount of influence of factors which are not controllable by the individual, the group or the organization and are not part of the immediate situation. For example the influence of the general context is low if routine work is done in the office. The influence is high, however, if there are great social and political changes which result in extreme job protection laws and the impossibility to lay someone off within one month.

Next, the importance of ***time-pressure, danger and formalization*** for each situation has to be rated.

Formalization refers to the number of rules, laws, regulations, and traditions that guide your behavior. For example, having a checklist to complete a task leads to high formalization, being absolutely free in what to do leads to very low formalization.

After having rated the situation, you will be asked to choose one of several possibilities for making a decision. It is not the final or actual decision we are interested in but the way you decide in this situation.

There are five different possibilities of deciding:

1) *deciding alone* ***(own decision)***;

2) *consulting with others but deciding alone* ***(consultation and own decision)***;

3) *deciding together with others* ***(joint decision)***;

4) *letting other people decide* ***(delegation)***; and

5) *ignoring the situation or waiting for further developments* ***(ignoring / waiting)***.

Finally, please indicate which way of deciding you would choose in the presented situation.

The Leadership Situation:

You are, as the owner of a large middle-class company, part of a business delegation that visits Japan under the direction of the foreign minister. Within the festivities of a 20 year-old treaty between the two countries, the whole delegation is invited to a celebratory banquet at the imperial court. The procedure of the banquet will adhere to the strict Japanese court ceremonial. Since the speaker of your business delegation cannot participate in the banquet due to severe food poisoning, you will have to give a short speech in the name of the delegation. The banquet will take place in two days. This is your first time in Japan. Other members of the delegation have been to the emperor's court at the 10-year anniversary of the treaty and some members have many years of foreign experience.

How strong is the effect of the following factors on your behavior?

	not at all	some	medium	strong	very strong
Individual competence (Experience, expertise, communication skills, problem solving abilities, etc.)	①	②	③	④	⑤
The group (Group opinion, experience of group members, group composition, cohesion, etc.)	①	②	③	④	⑤
The organization (Infrastructure, conditions, defined processes, incentives, etc.)	①	②	③	④	⑤
The general context (Applicable laws, environmental conditions, historical events, cultural norms & rules, etc.)	①	②	③	④	⑤
The immediate situation (Risk of failure and damage, familiarity of situation, decision pressure, uncertainties, etc.)	①	②	③	④	⑤

How high do you assess the following aspects in this situation?

	not at all	some	medium	strong	very strong
Time-Pressure (e.g. deadlines, quick reaction, etc.)	①	②	③	④	⑤
Danger (e.g. for organization, you, others, etc.)	①	②	③	④	⑤
Formalization (e.g. rules, procedures, regulations, laws, etc.)	①	②	③	④	⑤

Regarding the situation mentioned above, how adequate do you think are the following ways to decide what to do?

	very inade-quate				**very adequate**
deciding alone (own decision)	①	②	③	④	⑤
consult others, then decide alone (consultation)	①	②	③	④	⑤
decide together with others (joint decision)	①	②	③	④	⑤
delegate decision to others (delegation)	①	②	③	④	⑤
ignoring / waiting	①	②	③	④	⑤

Which way of deciding would you choose in this situation?

own decision ❍

consultation ❍

joint decision ❍

delegation ❍

ignore / wait ❍

The Leadership Situation:

You are the sales manager of a luxury goods manufacturer and you lead about 10 people. One of your employees has a very fastidious and rich customer. He wants you and your employee to travel to him in the next two days to sign a contract. Since there have been big problems with excessive travel costs in the past, your company has introduced a very strict travel authorization procedure. Normally, the authorization takes about three days. There are different forms on which you have to fill in the reason for the trip, the expected travel costs, the travel route, suggestions for the flights as well as a confirmation from your superior that the intended trip is indeed important. However, you and other members of your team know the people who need to authorize your travel plans. Your boss is in the house for the rest of the day. You must have the authorization, the tickets as well as other travel documents for you and your employee by this evening; otherwise the deal with the rich customer will not take place.

How strong is the effect of the following factors on your behavior?

	not at all	some	medium	strong	very strong
Individual competence (Experience, expertise, communication skills, problem solving abilities, etc.)	①	②	③	④	⑤
The group (Group opinion, experience of group members, group composition, cohesion, etc.)	①	②	③	④	⑤
The organization (Infrastructure, conditions, defined processes, incentives, etc.)	①	②	③	④	⑤
The general context (Applicable laws, environmental conditions, historical events, cultural norms & rules, etc.)	①	②	③	④	⑤
The immediate situation (Risk of failure and damage, familiarity of situation, decision pressure, uncertainties, etc.)	①	②	③	④	⑤

How high do you assess the following aspects in this situation?

	not at all	some	medium	strong	very strong
Time-Pressure (e.g. deadlines, quick reaction, etc.)	①	②	③	④	⑤
Danger (e.g. for organization, you, others, etc.)	①	②	③	④	⑤
Formalization (e.g. rules, procedures, regulations, laws, etc.)	①	②	③	④	⑤

Regarding the situation mentioned above, how adequate do you think are the following ways to decide what to do?

	very inade-quate				**very adequate**
deciding alone (own decision)	①	②	③	④	⑤
consult others, then decide alone (consultation)	①	②	③	④	⑤
decide together with others (joint decision)	①	②	③	④	⑤
delegate decision to others (delegation)	①	②	③	④	⑤
ignoring / waiting	①	②	③	④	⑤

Which way of deciding would you choose in this situation?

own decision ❍

consultation ❍

joint decision ❍

delegation ❍

ignore / wait ❍

The Leadership Situation:

You are the head of a civil mine clearing group which has volunteered to clear roads and fields in a former war region. You and your group of four demining specialists and about twenty local helpers want to clear a road which leads through a big mine field, between two neighboring villages. It is absolutely clear that the safety of your group and the civilians has top priority. To be able to clear the mines you have to block this section of the road completely and inform the local civilians of your intention. To locate the mines you follow a very strict procedure which aims at the highest possible security. For example the next meter of a road will be cleared when you are absolutely sure that there are no other mines hidden on the meter before. You have received necessary material like mine detectors and protective suits from an Non Government Organization (NGO). But not all mines can be found like that because the detector does not identify all mines. This means you have also have to clear the road by hand. In return, the NGO wants to take photos from your work to publish them in their brochure. Additionally, a government official has announced that he wants to have a look at the development of the mine clearing effort. Left and right of the road you are working on, hundreds of other mines are hidden which can explode at any time. You are responsible for the safety of the photographers and the government official.

How strong is the effect of the following factors on your behavior?

	not at all	some	medium	strong	very strong
Individual competence (Experience, expertise, communication skills, problem solving abilities, etc.)	①	②	③	④	⑤
The group (Group opinion, experience of group members, group composition, cohesion, etc.)	①	②	③	④	⑤
The organization (Infrastructure, conditions, defined processes, incentives, etc.)	①	②	③	④	⑤
The general context (Applicable laws, environmental conditions, historical events, cultural norms & rules, etc.)	①	②	③	④	⑤
The immediate situation (Risk of failure and damage, familiarity of situation, decision pressure, uncertainties, etc.)	①	②	③	④	⑤

How high do you assess the following aspects in this situation?

	not at all	some	medium	strong	very strong
Time-Pressure (e.g. deadlines, quick reaction, etc.)	①	②	③	④	⑤
Danger (e.g. for organization, you, others, etc.)	①	②	③	④	⑤
Formalization (e.g. rules, procedures, regulations, laws, etc.)	①	②	③	④	⑤

Regarding the situation mentioned above, how adequate do you think are the following ways to decide what to do?

	very inade-quate				**very adequate**
deciding alone (own decision)	①	②	③	④	⑤
consult others, then decide alone (consultation)	①	②	③	④	⑤
decide together with others (joint decision)	①	②	③	④	⑤
delegate decision to others (delegation)	①	②	③	④	⑤
ignoring / waiting	①	②	③	④	⑤

Which way of deciding would you choose in this situation?

own decision ❍

consultation ❍

joint decision ❍

delegation ❍

ignore / wait ❍

The Leadership Situation:

As the chief of the local volunteer fire department you are called to an apartment fire in the old town. Since this is not the first fire this year, you and your men have enough experience in fighting fires. As you arrive at the scene, you are told by a passer-by that someone is trapped in the fire. On top of that, you observe that the fire is spreading to the neighboring half-timbered houses. You only have two brigades at your disposal and you see that you absolutely need to control the fire before it spreads to other houses and that you rescue the trapped person. You could call the fire brigades from other towns but they need up to half an hour to get to the fire.

How strong is the effect of the following factors on your behavior?

	not at all	some	medium	strong	very strong
Individual competence (Experience, expertise, communication skills, problem solving abilities, etc.)	①	②	③	④	⑤
The group (Group opinion, experience of group members, group composition, cohesion, etc.)	①	②	③	④	⑤
The organization (Infrastructure, conditions, defined processes, incentives, etc.)	①	②	③	④	⑤
The general context (Applicable laws, environmental conditions, historical events, cultural norms & rules, etc.)	①	②	③	④	⑤
The immediate situation (Risk of failure and damage, familiarity of situation, decision pressure, uncertainties, etc.)	①	②	③	④	⑤

How high do you assess the following aspects in this situation?

	not at all	some	medium	strong	very strong
Time-Pressure (e.g. deadlines, quick reaction, etc.)	①	②	③	④	⑤
Danger (e.g. for organization, you, others, etc.)	①	②	③	④	⑤
Formalization (e.g. rules, procedures, regulations, laws, etc.)	①	②	③	④	⑤

Regarding the situation mentioned above, how adequate do you think are the following ways to decide what to do?

	very inade-quate				**very adequate**
deciding alone (own decision)	①	②	③	④	⑤
consult others, then decide alone (consultation)	①	②	③	④	⑤
decide together with others (joint decision)	①	②	③	④	⑤
delegate decision to others (delegation)	①	②	③	④	⑤
ignoring / waiting	①	②	③	④	⑤

Which way of deciding would you choose in this situation?

own decision ❍

consultation ❍

joint decision ❍

delegation ❍

ignore / wait ❍

The Leadership Situation:

You are the organizer of a small music festival which has been taking place for many years now. You and the organizing committee have prepared an excellent program. A large part of the tickets have already been sold, artists are booked and the festival ground construction is almost finished. The opening concert will take place in two days. This morning, however, the police and the bankruptcy authorities arrive at your office and inform you that the hired music system is being confiscated because the hiring company is heavily in debt and its creditors suspect bankruptcy offenses. The system should be removed the same day. Some members of the organizing committee have been in the business for many years and know many music system suppliers from the region. Several new offers are being requested at the moment. In addition, some artists have already arrived.

How strong is the effect of the following factors on your behavior?

	not at all	some	medium	strong	very strong
Individual competence (Experience, expertise, communication skills, problem solving abilities, etc.)	①	②	③	④	⑤
The group (Group opinion, experience of group members, group composition, cohesion, etc.)	①	②	③	④	⑤
The organization (Infrastructure, conditions, defined processes, incentives, etc.)	①	②	③	④	⑤
The general context (Applicable laws, environmental conditions, historical events, cultural norms & rules, etc.)	①	②	③	④	⑤
The immediate situation (Risk of failure and damage, familiarity of situation, decision pressure, uncertainties, etc.)	①	②	③	④	⑤

How high do you assess the following aspects in this situation?

	not at all	some	medium	strong	very strong
Time-Pressure (e.g. deadlines, quick reaction, etc.)	①	②	③	④	⑤
Danger (e.g. for organization, you, others, etc.)	①	②	③	④	⑤
Formalization (e.g. rules, procedures, regulations, laws, etc.)	①	②	③	④	⑤

Regarding the situation mentioned above, how adequate do you think are the following ways to decide what to do?

	very inade-quate				very adequate
deciding alone (own decision)	①	②	③	④	⑤
consult others, then decide alone (consultation)	①	②	③	④	⑤
decide together with others (joint decision)	①	②	③	④	⑤
delegate decision to others (delegation)	①	②	③	④	⑤
ignoring / waiting	①	②	③	④	⑤

Which way of deciding would you choose in this situation?

own decision ❍

consultation ❍

joint decision ❍

delegation ❍

ignore / wait ❍

The Leadership Situation:

You are the president of the board of directors of a stock company. Because of the difficult state of the economy, your company urgently needs new funds. After a long search you have found two wealthy ethics foundations which give their money only to companies that act ethically and morally correct. However, a severe case of corruption in your company becomes public. This incident happened without your knowledge in your sales department. Different important stockholders and stockholder associations demand your immediate resignation as you are responsible for the company. At the same time, the public prosecution department is investigating against you for being corrupt. The two foundations threaten to withdraw their investment, in case the necessary consequences are not drawn. The board and management have confidence in you, come to your defense and want you to continue as the president of the board.

How strong is the effect of the following factors on your behavior?

	not at all	some	medium	strong	very strong
Individual competence (Experience, expertise, communication skills, problem solving abilities, etc.)	①	②	③	④	⑤
The group (Group opinion, experience of group members, group composition, cohesion, etc.)	①	②	③	④	⑤
The organization (Infrastructure, conditions, defined processes, incentives, etc.)	①	②	③	④	⑤
The general context (Applicable laws, environmental conditions, historical events, cultural norms & rules, etc.)	①	②	③	④	⑤
The immediate situation (Risk of failure and damage, familiarity of situation, decision pressure, uncertainties, etc.)	①	②	③	④	⑤

How high do you assess the following aspects in this situation?

	not at all	some	medium	strong	very strong
Time-Pressure (e.g. deadlines, quick reaction, etc.)	①	②	③	④	⑤
Danger (e.g. for organization, you, others, etc.)	①	②	③	④	⑤
Formalization (e.g. rules, procedures, regulations, laws, etc.)	①	②	③	④	⑤

Regarding the situation mentioned above, how adequate do you think are the following ways to decide what to do?

	very inade-quate				**very adequate**
deciding alone (own decision)	①	②	③	④	⑤
consult others, then decide alone (consultation)	①	②	③	④	⑤
decide together with others (joint decision)	①	②	③	④	⑤
delegate decision to others (delegation)	①	②	③	④	⑤
ignoring / waiting	①	②	③	④	⑤

Which way of deciding would you choose in this situation?

own decision ❍

consultation ❍

joint decision ❍

delegation ❍

ignore / wait ❍

The Leadership Situation:

You are the leader of a marketing team consisting of 6 employees. It is Friday noon and your employees are looking forward to the weekend. Due to a short-term decision of the management, you have to work out a new concept by the middle of next week for an information desk at the largest student fair that takes place the week after. However, you and your colleagues will be at another fair abroad at the beginning of next week. Your superior expects a decision by mid-afternoon on how you will tackle this assignment.

How strong is the effect of the following factors on your behavior?

	not at all	some	medium	strong	very strong
Individual competence (Experience, expertise, communication skills, problem solving abilities, etc.)	①	②	③	④	⑤
The group (Group opinion, experience of group members, group composition, cohesion, etc.)	①	②	③	④	⑤
The organization (Infrastructure, conditions, defined processes, incentives, etc.)	①	②	③	④	⑤
The general context (Applicable laws, environmental conditions, historical events, cultural norms & rules, etc.)	①	②	③	④	⑤
The immediate situation (Risk of failure and damage, familiarity of situation, decision pressure, uncertainties, etc.)	①	②	③	④	⑤

How high do you assess the following aspects in this situation?

	not at all	some	medium	strong	very strong
Time-Pressure (e.g. deadlines, quick reaction, etc.)	①	②	③	④	⑤
Danger (e.g. for organization, you, others, etc.)	①	②	③	④	⑤
Formalization (e.g. rules, procedures, regulations, laws, etc.)	①	②	③	④	⑤

Regarding the situation mentioned above, how adequate do you think are the following ways to decide what to do?

	very inade-quate				**very adequate**
deciding alone (own decision)	①	②	③	④	⑤
consult others, then decide alone (consultation)	①	②	③	④	⑤
decide together with others (joint decision)	①	②	③	④	⑤
delegate decision to others (delegation)	①	②	③	④	⑤
ignoring / waiting	①	②	③	④	⑤

Which way of deciding would you choose in this situation?

own decision ❍

consultation ❍

joint decision ❍

delegation ❍

ignore / wait ❍

The Leadership Situation:

You are the head of a traffic coordination centre of a large city. For many years now, you have led an experienced team of 6 employees. Each of your employees is responsible for a particular area of the traffic system. On your screen, you observe that a tanker truck has had an accident in the main access tunnel and starts burning. Your course of action is clearly defined by crisis management plans. The whole procedure is written down in an emergency procedure that includes check-lists and is rehearsed from time to time. You know that the tunnel has to be closed off immediately, so that no other vehicles enter the burning tunnel. The fire department, paramedics and police have to be contacted immediately. Therefore, you have to change the number of open lanes into the tunnel with the traffic management system, so that the whole traffic only uses one lane and the other lane will be free for the emergency vehicles. The entire rush-hour traffic that has just started must be redirected by different routes. Furthermore, radio and TV stations need to be notified as fast as possible, so that the population can react to this situation. The public transport companies have to be informed as well so that they can adapt to the changed traffic situation.

How strong is the effect of the following factors on your behavior?

	not at all	some	medium	strong	very strong
Individual competence (Experience, expertise, communication skills, problem solving abilities, etc.)	①	②	③	④	⑤
The group (Group opinion, experience of group members, group composition, cohesion, etc.)	①	②	③	④	⑤
The organization (Infrastructure, conditions, defined processes, incentives, etc.)	①	②	③	④	⑤
The general context (Applicable laws, environmental conditions, historical events, cultural norms & rules, etc.)	①	②	③	④	⑤
The immediate situation (Risk of failure and damage, familiarity of situation, decision pressure, uncertainties, etc.)	①	②	③	④	⑤

How high do you assess the following aspects in this situation?

	not at all	some	medium	strong	very strong
Time-Pressure (e.g. deadlines, quick reaction, etc.)	①	②	③	④	⑤
Danger (e.g. for organization, you, others, etc.)	①	②	③	④	⑤
Formalization (e.g. rules, procedures, regulations, laws, etc.)	①	②	③	④	⑤

Regarding the situation mentioned above, how adequate do you think are the following ways to decide what to do?

	very inade-quate				**very adequate**
deciding alone (own decision)	①	②	③	④	⑤
consult others, then decide alone (consultation)	①	②	③	④	⑤
decide together with others (joint decision)	①	②	③	④	⑤
delegate decision to others (delegation)	①	②	③	④	⑤
ignoring / waiting	①	②	③	④	⑤

Which way of deciding would you choose in this situation?

own decision ❍

consultation ❍

joint decision ❍

delegation ❍

ignore / wait ❍

The Leadership Situation:

You have been the manager of a logistics department of a small clock manufacturer for many years and you lead three qualified employees. In order to save costs, you often pack different shipments in a single container and separate them at their destination port. Since you have a very small shipment this time, the management decides to use a container together with a partner company that has only a small shipment as well. In the morning, you are visited by the police and the federal prosecutors. Your container has been seized at the destination port and a considerable amount of drugs has been found. As the manager of logistics, you are accused with organizing drug trafficking, since you are responsible for all transports of the company. The police want to interrogate you at the station but give you 10 minutes under watch to organize yourself. In case the allegations should be confirmed, you will be extradited to the country where the drugs have been found and you will most likely go to prison for a long time. Additionally, there would be severe damage caused to the company.

How strong is the effect of the following factors on your behavior?

	not at all	some	medium	strong	very strong
Individual competence (Experience, expertise, communication skills, problem solving abilities, etc.)	①	②	③	④	⑤
The group (Group opinion, experience of group members, group composition, cohesion, etc.)	①	②	③	④	⑤
The organization (Infrastructure, conditions, defined processes, incentives, etc.)	①	②	③	④	⑤
The general context (Applicable laws, environmental conditions, historical events, cultural norms & rules, etc.)	①	②	③	④	⑤
The immediate situation (Risk of failure and damage, familiarity of situation, decision pressure, uncertainties, etc.)	①	②	③	④	⑤

How high do you assess the following aspects in this situation?

	not at all	some	medium	strong	very strong
Time-Pressure (e.g. deadlines, quick reaction, etc.)	①	②	③	④	⑤
Danger (e.g. for organization, you, others, etc.)	①	②	③	④	⑤
Formalization (e.g. rules, procedures, regulations, laws, etc.)	①	②	③	④	⑤

Regarding the situation mentioned above, how adequate do you think are the following ways to decide what to do?

	very inade-quate				**very adequate**
deciding alone (own decision)	①	②	③	④	⑤
consult others, then decide alone (consultation)	①	②	③	④	⑤
decide together with others (joint decision)	①	②	③	④	⑤
delegate decision to others (delegation)	①	②	③	④	⑤
ignoring / waiting	①	②	③	④	⑤

Which way of deciding would you choose in this situation?

own decision ❍

consultation ❍

joint decision ❍

delegation ❍

ignore / wait ❍

DEMOGRAPHICS

This final set of questions focuses on additional information on your person.

What is your age?

_____

Are you male or female?

❍ male ❍ female

In which country do you live?

_____

In which national culture have you mainly been raised?
(e.g. if you are from Singapore and you are raised in an Indian culture you choose India. If you are from the French speaking part of Switzerland you choose Switzerland and mother tongue French).

_____

Which culture / nation have you rated in this study?

_____

What is your current profession?

_____

Do you have leadership experience?

☐ yes ☐ no

How many years of leadership experience do you have?

☐ no experience
☐ 0-5
☐ 5-10
☐ 10-15
☐ 15-20
☐ more than 20 years

What was the maximum of people that you have led?
Write the number in the field below.

_____

What is the highest level of formal schooling you have completed?

_____

Which institution are you currently affiliated to?
(e.g. University Zurich, MILAK, etc.)

_____

What is your mother tongue?
Please write in the field below.

_____

How good is your English?

- ☐ not good at all
- ☐ difficulties in understanding
- ☐ understand most
- ☐ understand everything
- ☐ native speaker

How difficult was it for you to understand and answer the questions in this online study?

very easy	easy	medium	difficult	very difficult
☐	☐	☐	☐	☐

Thank you very much for being part of our study and for your cooperation in helping us to enlarge our knowledge about how culture, personality, and situation influence leadership behavior.

For further questions please contact **andres.pfister@milak.ethz.ch**

Curriculum Vitae

PERSONAL INFORMATION

Full Name:	Andres Pfister
Date of Birth:	24th February, 1979
Citizenship:	Switzerland (from Erlenbach / ZH)
Marital Status:	Married
Home Address:	Alfred-Escher-Strasse 66 8002 Zürich
Tel.	+41 (0)76 411 42 23 +41 (0)43 817 66 13
E-mail:	andres.pfister@gmail.com

EDUCATION

2006 - 2010 **Doctoral studies at the University of Zurich**
- Doctoral dissertation on leadership
- Participation at international congresses
- Various seminars on writing skills and multivariate statistics

1998 - 2004 **Master's Degree in Psychology, University of Basel**
- Major in Social and Economic Psychology
- Diploma thesis on how rumors and their dementi influence internal and external attitudes

1992-1998 **Matura, Mathematisch-Naturwissenschaftliches Gymnasium Basel**

1988-1992 **Friedrich Dessauer Gymnasium, Aschaffenburg**

WORK AND TEACHING EXPERIENCE

since 06/06 **Swiss Military Academy at ETHZ (80%)**
Research Assistant at the Department of Communication and Leadership
- Planing, conducting, and analyzing national and international research projects

- Teaching blockcourses on communication, leadership, and leadership ethics for professional military officers of various grades
- Giving the lectures 'Leadership I & II' at the ETHZ
- Consulting for the Swiss Army as well as external organizations

03/05 – 03/06 **Colehower & Company AG (100%)**
HR Consultant and Project Manager
- worldwide recruiting of IT & Communication Technology specialists
- Personnel selection
- Planing and organizing Interviews in Europe

since 06/06 **University of Basel (20%)**
Undergrad Research Assistant at the Department of Social- and Economic Psychology
- Planing, conducting, and analyzing research projects
- Administration

PROFESSIONAL AFFILIATIONS

since 2010 **Academy of Management**
Student Member

since 2007 **International Leadership Association**
Student member

since 2007 **Society for Personality and Social Psychology**
Student member

since 2007 **Pedagogic and Psychological Service of the Swiss Armed Forces**
Special Officer, Drug and Stress Prevention Mediator

FURTHER QUALIFICATIONS AND INTERESTS

Languages:	**German:**	Native language
	English:	Fluent in speaking and writing
	French:	Intermediate
IT:	**MS Office:**	Expert knowledge

SPSS:	Expert knowledge
AMOS:	Expert knowledge

Assessment Center: Trained Moderator and Oserver

Interests: Science, Music, Sports, Travelling

PUBLICATIONS

Seiler, S. & Pfister, A. C. (2009). Why did I do this? Understanding leadership behavior based on the dynamic five-factor model of leadership. *Journal of Leadership Studies, 3,* 41-52.

Seiler, S. & Pfister, A. C. (2008). Effective Intercultural Leadership - A Holistic Approach. In P. Murphy, G. Fogarty & J. Swann (Eds.). *Selected Proceedings of the 49th Annual Conference of the International Military Testing Association*. (pp. 240-252). Canberra: IMTA.

Seiler, S. & Pfister, A. C. (2007). Einflussfaktoren auf interkulturelles Führungsverhalten. In: L. Krysl (Hrsg.). *Interkulturelle Kompetenz in den Streitkräften.* (S. 117-142) Wien: Landesverteidigungsakademie.

Jezernik, S., Pfister, A., Frueh, H., Colombo, G., & Morari, M. (2002). Robotic Orthosis Lokomat: Its use in the rehabilitation of locomotion and in the development of the biology-based neural controller. *Proceedings of the 7th Annual IFESS Conference*, Ljubljana / Slovenia, 301-303.